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*To the Editor of the New York Farmer and Horticultural Repository.*

Samuel L. Mitchill, at the request of Mr. William Wilson, offers for insertion in your valuable work, a communication on the insects that prey upon Peaches and Plums. He is, you know, a good observer, and seems really to have found that the larva of the *Egeria* is the great enemy of these fruits; and that a species of *Curculio*, which has bean charged with doing similar mischief, is in reality the great destroyer of the peach-worm itself. His views are highly interesting to horticulturists, and in several respects are quite new to the writer of this article.

*July* 12, 1829.

**ART. 88.**—*Observations on certain Insects, that prey upon Peaches and Plums.* [In a communication from William Wilson to Samuel L. Mitchill.]

Sir,—Knowing the great pleasure you feel in promoting every species of science calculated to advance the best interests of your country, I herewith transmit for your examination a few Peaches and Plums, as they have recently fallen from their respective trees, which I expect upon investigation you will find to be infected by the same species of worm that occasionally finds its way to the roots of the Peach tree, and which if not removed therefrom soon occasions its death. The idea that the fly, which deposits the egg of this worm, prefers the gum for its repository, I have always considered erroneous, and which I think the examination of the fruit I send you will evidently prove. An easy and sure means of destroying them, is to gather up from under the trees the fruit thus infected, giving it to the hogs or otherwise destroying it. In every situation where I have examined the fallen Peaches from trees not in the vicinity of bearing Plums, I have found them almost invariably containing the young Peach worm, the egg of which must undoubtedly have been deposited in the germen or very young fruit of this present season. On the ground I occupy at Murray Hill, there are no bearing Plum trees, and every Peach that I have examined under the trees there, has had the young worm in it. But on examining the Peaches in the Garden of Charles Oakley Esq. I was a little surprised to see but comparatively few fallen fruit, and scarcely any of them containing any appearance of the worm. His garden contains a number of fine Plum trees intermixed with the Peaches; and the fruit of his Plum trees has fallen off in great quantities, every one of which appears to contain the same species of worm as the Peach. From which circumstance I am persuaded the fly prefers the Plum to the Peach for the depository of its eggs, and that consequently the planting of Plum trees amongst our Peaches would be one great means of preserving the fruit of the latter. I am aware that the destruction of our Plums has been ascribed to the attacks of the Curculio; however correct this statement may have been in other seasons or situations I know not, but it appears evident to me the same fly that deposits the egg of the Peach worm upon the Peaches, deposits it in the Plum, and that the Curculios, instead of being the cause of the Plums falling prematurely, actually contribute in a very eminent degree to the preservation of our fruit by destroying the Peach worms, after the fruit containing them fall upon the ground.

Whether the Curculio deposits its eggs in the fruit while on the tree or after it falls, I do not know. If it does while on the tree, they must take a much longer time to hatch than that of the Peach worm, which I have often found a quarter of an inch in length when the fruit fall. The Curculio I have never seen till several weeks after the fruit had fallen. I have then found them in bunches in a single fruit with the remains of the Peach worm dissolved into a soft watery like substance; but I never have found a Peach worm alive in any of the fruit after the Curculios entered it. The Curculios, even in their youngest larvæ state are easily discernible (from that of the Egeria exitiosa or Peach worm) by their feet and feelers as well as their more small wiry and active appearance. But as I have sent you samples of both in their native livery, you will be able to correct me if I am under any mistake as to their titles &c.

I am Sir with great Respect, yours truly,

William Wilson.

*New York, July 11th*, 1829.

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**ART. 89.**—*Notice of the late publication of* William Beastall, *entitled, An Useful Guide for Grocers, Distillers, Hotel and Tavern Keepers, and Wine and Spirit Dealers of every description* &c. 1829. 8*vo. pp.* 340.

This work purports to be a complete directory for making and managing all kinds of wines and spiritu-

ous liquors. It is so closely connected with the products of the garden and farm, that there is a manifest propriety in announcing it on the pages of this periodical. The several titles under which the author has arranged his materials are these: 1. Wines, 2. Cider and Perry, 3 Malt liquors, 4 Vinegar, 5 Brandy, 6 Rum, 7 Geneva, 8 Liquors, 9 Cordials, 10 Salting and curing beef, pork and fish, 11 Pickels and Preserves.

He commences by informing his readers what are the constituent parts of wine, to wit: 1. Sugar or the sweet juice usually called must, from which the liquor is obtained. 2. Alcohol or pure spirit, that is disengaged during the vinous fermentation. 3. Water. 4. Colouring matter. 5. Vegetable extractive matter. 6. Essential oil, to which the peculiar flavour is owing. 7. Acetic, malic and tartaric acids. The process of making wine, he observes does not essentially differ from making cider. After enumerating the principal wines of Portugal, France, Spain, Italy and Germany, with those of Madeira, Teneriffe and the Cape of Good Hope, he remarks that all wines naturally possess a proportion of alcohol or ardent spirit, and that to the foreign wines is added a quantity of it, to prevent as is alledged, their running in the acetous fermentation during the voyage. This increases materially those inebrating effects, and it is believed by many, to be added, in certain cases expressly for that purpose, to suit the taste prevalent in particular markets.

Then he gives the result of a series of experiments on several Wines, and Ales, made by Dr. Reeve, for the purpose of ascertaining the quantity of spirit they respectively contain. Who would think, that a bottle of pale Sherry contains 3 ounces, of Madeira two ounces and 5 drams, of Cape-wine 2 1-2 ounces, of Port wine 2 ounces and 7 drams? The same chemist found that the 24 ounces of Brandy which he tried contained 10 ounces of alcohol; and that 24 1-2 of Rum afforded 9 1-2 ounces. But he does not inform what the proof of either was, by the hydrometer or the hydrostatic balance; on this account the subject is still involved in much uncertainty. Of Port Wine he declares plainly that it is only a diluted spirit.

The author next enters upon quite a curious subject, that of preparing *artificial wines* as he terms them, intended to be imitations of the natural ones. He shows how they may be manufactured, into not only the sweet, but the dry and strong kinds, without one drop of the juice of the grape! In order to accomplish this, a juice or must is prepared similar to that of the grape in its general composition. No fruit in our climate yields precisely such a juice. It is therefore prepared by art. The saccharine principle is one of the ingredients; and the tartaric acid or tartar is another. It is hard to get rid of the excess of the malic acid, which is an unpleasant article in wines; and by its presence renders those factitious liquors inferior to the genuine productions of the grape. But the sugar and tartar are indispensible materials.

After describing the diseases of wine, such as *acidity*, *ropiness*, *mustiness* and *fretting*, he inserts Mr. Brande's table representing the quantity by measure of alcohol, specific gravity 825, contained in different wines and other fermented liquors. It is worthy of particular remark, that Lissa, Raisin, Marsala, and Port Wines, frequently contain more than 25 per cent; Madeira upwards of 24, Sherry nearly 20, Teneriffe about the same, and Malaga upwards of 17. The inquirer is however referred to the work itself, p. 39—43 for further details. It cannot fail to be observed that such wines are in reality *grog in disguise*.

The author then gives a considerable number of practical directions and receipts, for the different sorts of these imitations, which are followed by extracts from the transactions of the Philadelphia Philosophical Society, from Nicholson's Journal; from the writings of Joseph Cooper Esq. with a long list of practical directions, about fining, filtering and other matters.

After having treated so much at large on wines, Mr. B. page 157, proceeds to deliver his sentiments on the liquid productions of the apple and the pear. His directions for making, manging, fining, purifying and improving Cider, may be procured in the part of his work from p 157 to p. 168.

It is really remarkable how prevalent the practice is of mixing brandy with cider for *managing* it, as the phrase is, for *restoring* it when sour, and for *improving* it when it has become too flat and insipid.

Under the head of Malt liquor, his observations on the qualities of water for brewing, on the choice of malt and hops, on Mash-tubs and casks, and several other subjects, evince extensive knowledge of the materials and processes.

He gives information how to make vinegar p. 203, 207, from wine, cider, refuse of fruit, Beer, Raisins, Gooseberries, Currants and Sugar.

In the chapter upon brandy, he shows how it may be prepared from wine, molasses, (oranges, lemons, caraways, poppies and raspberries for flavors) peaches, fox grapes, apples, beets, potatoes, persimmons and carrots.

His directions how to make imitations, and for purifying and improving the flavour of malt spirits previous to their being converted into brandy, are minute and ample. The best spirits for such operations are cider-spirits, raisin spirit and crab-spirit. Sweet spirit of nitre and the essential oil of Wine are great agents in imparting the brandy flavour. Gin, Brandy

and even Jamaica-rum have been so well imitated as to deceive very good judges p. 214.

In his history of Rum, he mentions numerous varieties: tells how New England rum may be made to imitate that of Santa Croix, and how *one puncheon of fourth proof* Jamaica rum may be so managed, as to make *four puncheons of first proof*, p. 253.

He has written quite a curious tract on Geneva (gin), the artificial compound prepared from *whiskey* and *spirit* of *turpentine* p. 263—277, the Juniper oil and berry being mostly discontinued, at least in England and this country.

Abundance of information is contained in his various receipts for making ratifias, noyeau, annisette, usquebough, and other sorts of liquors and cordials, p. 277—302.

The remaining parts of Mr. Beastall's publication would afford materials for further remarks, and useful extracts, but after the account already given of it, there seems to be a propriety in closing it, and recommending the reader to the original for more precise information. L.

*Remarks by the* Editor.—We have not read the work refered to above, but should suppose, from the account given, that it is a very "useful guide" to *spirit drinkers* as well as to "spirit dealers" of every description—showing what frightful compounds of acids, alkalies, coloring matter, turpentine, and other deleterious ingredients enter their stomachs, destroying their constitutions, and bringing their mortal frames to a speedy and premature dissolution. We deem it our duty to embrace this opportunity to state, that our claim to a common share of humanity and patriotism, impels us to add our testimony in favor of all judicious exertions to suppress the excessive use of ardent spirits, which has been and is still entailing misery and woe on our otherwise happy land.

## ART. 90.—*American Turnip Butterfly.* [From the New-England Farmer.]

In Europe there are several species of butterfly appropriated to the *cruciferous* or *olevaceous* plants, such as the cabbage, cauliflower, rape, turnip, mustard, &c., whence they are called *brassicaires** by the French. Their caterpillars feed upon the leaves of these vegetables, and sometimes do considerable injury to them. The prevailing color of the butterflies is white, and that of the caterpillars green.

Several years since I obtained, in Northampton a white butterfly, which appeared to be allied to the European insects above mentioned. Doct. Charles Pickering discovered one, previously, near the White Mountains, New Hampshire; and a chrysalis was brought to me, by a friend, from Keene, in the same State, in the winter of 1827. I have since received, through the attentions of the Rev. L. W. Leonard, several of the chrysalids and eggs, and some interesting observations on the economy of the caterpillars, which are found abundantly on the turnip, cabbage, and radish, in the vicinity of the Monadnoc Mountains, N. H., and in the northern part of Worcester county, Massachusetts. Having been so fortunate as to raise the perfect insect from the egg, I am now enabled to furnish a history of this species, which threatens to become injurious to the cultivator.

There are two broods in a season. About the last of May and the beginning of June the white butterfly is seen fluttering over the plantations of cabbages, and turnip, and radish beds, but "seems to prefer the turnip leaf for the place of depositing her eggs. She alights upon the upper side of the edge of the leaf, bends her abdomen, and fastens the egg, on its end, under it. The eggs are not laid near each other, and but seldom more than three or four under the same leaf."*—The egg is nearly pear-shaped, longitudinally ribbed, and about one-fifteenth of an inch in length. "Eggs kept in the house were hatched in seven days, a somewhat longer time was necessary for the hatching of those in the open air." The caterpillers or larvæ, which I reared from eggs hatched upon the 27th of May arrived at their full size in 21 days, when they were one inch and a quarter in length. Being of a pale green colour they were not readily distinguished from the ribs of the leaves, beneath which they reside. They do not devour the leaf at its edge, but commence, indiscriminately, upon any part of its inferior surface, through which they eat irregular holes.

On the 17th of June, one of my caterpillars ceased eating, and spun, from its mouth, a little web of silk on the glass under which it was confined; in this web it attached the minute claws which arm the pair of feet at its hinder extremity; then bent the head on one side, and fixed, upon the glass nearly under the middle of the body, a silken filament, which it carried across the back and secured on the other side: this operation was repeated till a thread of sufficient thickness was produced to form a loop in which the anterior part of the body was suspended. On the next day the skin, near the head, was rent, by the exertions of the caterpillar, and was gradually cast off, leaving the chrysalis or pupa sustained by its tail and the transverse loop. In eleven days, on the 29th of June, the butterfly burst its pupa case, and extricated itself. The wings are white, a little dusky at base,

* From Brassica, the generic name of the cabbage, turnip, rape, &c.

* The observations, within inverted commas, were communicated by Mr. Leonard.

and the posterior ones have dusky veins beneath. The butterflies disclosed in summer "deposit their eggs from the middle to the end of August." The pupæ of this second brood survive the winter, and do not produce butterflies till the ensuing spring. Mr. LEONARD informed me that the pupæ are found under rails, the edges of stones, and in other sheltered situations in gardens and fields; and suggests that it would be well to leave, in the places infested by the caterpillars, boards a little elevated from the ground which would offer a tempting shelter to the pupæ, and render it easy for the farmer to obtain and destroy them.

Mr. LEONARD noticed the white butterfly in all the towns in the vicinity of the Monadnoc Mountain, and also in Ashby, Fitchburg, Athol, Winchendon, Templeton, and Petersham, Mass. That it may, eventually, extend itself still farther is to be apprehended, unless means are used to check its increase. It was in May, 1826, that I found a solitary one in Northampton, but I have not heard whether it has become common in Hampshire county.

In concluding this account of the white butterfly it will be proper to point out its entomological situation and characters, and assign it an appropriate scientific name.

ORDER LEPIDOPTERA. *Section Diurna.* FAMILY PAPILIONIDÆ.

Genus PONTIA. Fab. Ochsenheimer. Leach. Stephens.

GENERIC CHARACTER.* *Legs six, alike in both sexes. Wings entire, opaque; anterior somewhat triangular, obtuse-angles or rounded at tip, generally white with some black spots; posterior rounded with a grove on the inner margin to receive the abdomen, beneath often colored yellowish or greenish;* areola in the centre obliquely closed by a straight connecting nervure. *Antennæ with an abrupt, obconic, compressed club.—Pupa angular, acuminated in front, with projecting lateral appendages in front of the wing-cases.* The body suspended by the tail and a transverse thread across the middle.—*Larva with a small round head; body slender, tapering at each end, downy,* with a dark dorsal line.

*Observations.* This genus is nearly related to COLIAS, of which genus we have several species in the United States, but only one true PONTIA to my knowledge. The common small, yellow butterfly is a COLIAS, which may be distinguished from PONTIA by the prevailing yellow or orange colors of the species, the short antennæ, with the gradually formed obconic club, and the areola in the posterior wings completed by an angulated connecting nervure. The *pupa* of COLIAS is gibbous, the anterior extremity very obtusely conical, or not much produced, no lateral elevated angles, and no prominent dorsal projections. The *larva* has no central, longitudinal stripe. The flight of the PONTIA is heavy and low; that of COLIAS is light, and is sometimes extended to a great height. These two genera, together with MANCIPIA, LEUCOPHASIA, and GONEPTERYX, (of which I believe there are no species in New-England,) are established upon a critical examination of the pupæ and larvæ, as well as of the perfect insects, and in their propriety I fully coincide. Schrank and Latreille, unite them all in the genus PIERIS, and appear to be followed in this by Professor Say, whose PIERIS *Nicippe* is a true COLIAS.

The subject of this communication has a close affinity to P. *Napi* of Europe, but it is a large insect, and somewhat differently colored. Under the impression that it is a nondescript, I have given it a specific name derived from the *habitat* of the larva.

PONTIA *Oleracea.*

*Specific Character.* Wings white, sub-diaphanous, anterior ones dusky at base, and on the external edge, tip beneath pale yellow with fuscous veins; Posterior wings beneath straw colored with fuscous veins, humeral angle yellow. Body black, with cinereous hairs above, and whitish ones beneath. Antennæ black brown, annulated with white scales; apex pale ochreous.

Expansion of the wings about two inches.

*Egg* pyri form, longitudinally ribbed, yellowish.

*Larva* pale green, with a darker dorsal line, very minutely punctured with darker spots, and inconspicuously downy. Length, at full size, 1 1-4 inch.

*Pupa* pale green or white, regularly and finely spotted with black; anterior extremity produced, conical, back before, with an elevated, laterally compressed, securiform process, sides of the dorsum, in the middle, angular, and elevated; posterior part with a central carina. Length eight-tenths of an inch.

*Habitat* (natural unknown;) on the leaves of BRASSICA *Rapa*, B. *Oleracea*, and RAPHANANUS *sativus*, in New Hampshire, and Massachusetts.

In a speculative point of view PONTIA *oleracea* is exceedingly interesting to the naturalist, and a valuable addition to the American Fauna. It is, undoubtedly, an American insect, and sufficiently distinct from the European species of the same genus. Having, like them, an appetency for the *cruciferous* oleraceous plants (*Tetradynamia siliquosa,*) it has fixed itself upon the turnip, cabbage, and radish, which are not natives of the United States. On what, then, did the insect subsist before these vegetables were introduced by the Anglo-Americans? It is to be hoped that those botanists, who may have it in their power, will carefully look for the larvæ on the cruciferous plants

* The characters in *italics* are extracted from Mr. Children's translation of Ochsenheimer's genera.

of the elevated regions of New Hampshire, in the months of May and September.

T. W. Harris.

*Milton, Mass. June* 30, 1829.

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**ART. 91.**—*On the Botany of America.* By William Jackson Hooker, LL.D. F.R.S.E. [From Dr. Brewster's Edinburgh Journal of Science.]

In 1802, Mr. Pursh had the charge of the extensive gardens of W. Hamilton, Esq. called the Woodlands, which having, immediately previous, been under the charge of Mr. Lyon, an Englishman, and an eminent collector, were found to be enriched with a number of new and valuable plants; and Mr. Pursh affirms, that through Mr. Lyon's means, more rare and novel plants have been introduced from thence to Europe than through any other channel whatever. The herbarium, as well as the living collection of Lyon, was of great use to Mr. Pursh; and the plants described by him, from specimens seen only in that herbarium, are numerous.

The interesting expedition of Messrs. Lewis and Clarke across the vast continent of America to the Pacific Ocean, by the way of the Missouri and Great Columbia rivers, was productive of a small collection of about 150 species of plants, (but of which not a dozen were previously known to the natives of America,) which Mr. Pursh had the opportunity of describing. These were gathered during the rapid return of the expedition from the Pacific Ocean towards the United States. A far more extensive herbarium had been formed by the same expedition on the ascent towards the Rocky Mountains, and among the chains of the Northern Andes; but this was lost, in consequence of the inability to carry it beyond a certain point.

Another set of specimens to which Mr. Pursh had free access, was that belonging to Mr. Ensley, a German naturalist, who had been sent out to America by Prince Lichtenstein. It was particularly rich in the vegetable productions of Lower Louisiana and Georgia.

Thus, by Mr. Pursh's personal exertions and industry, and by the aid of other botanists, he found himself, about the year 1807, in possession of materials for a Flora of North America, amounting to nearly double the number of species enumerated by Michaux. He began seriously to think of publishing them, and applied to some bookseller in Philapelphia for that purpose; but his intention was deferred in consequence of his being called upon to take the management of the public Botanic Garden at New-York, originally established by Dr. David Hosack, and his private property. Here, again, keeping his favourite object respecting the publication of a Flora in view, he had the opportunity of adding farther to his knowledge of the plants of the United States, and of obtaining still greater assistance, particularly from M. Le Conte of Georgia, and from the estimable Professor Peck* of New Cambridge University.

Fortunately for the cause of science, there existed at the time of which we are speaking, so many obstacles to the publication of scientific works in America, that Mr. Pursh was led to visit England, where the reception he met with from Sir Joseph Banks, and A. B. Lambert, Esq. made him resolve upon printing his book in this country. The access which was granted him to the Libraries and collections of these two eminent men, were alone a source of much advantage to him. He had also the opportunity of examining, amongst others, the select Herbaria of *Clayton*, in the Banksian collection, from which the *Flora Virginica* was formed; of *Walter* from which the *Flora Caroliniana* was compiled, in the possession of Messrs. Frasers of Sloan-square; of Catesby, part of which is in the British Museum, whilst another part together with numerous additions from Walter, Michaux, J. Bartram, and a Mr. Tilden, from Hudson's Bay, is in the Sherardian Herbarium at Oxford; that of Plukenet, in the British Museum; of Pallas, (in the possession of Mr. Lambert,) rich in the vegetable productions of northern Asia, which as is well known, bear a great affinity to those of the northern parts of America; of Mr. Bradbury, which was formed in Upper Louisiana, in the possession, we believe, of the Botanic Garden at Liverpool; and of A. Menzies, Esq. which was selected, during that gentleman's voyage with captain Vancouver, upon the N. W. coast of America. Nor should the various collections be omitted which are found in the gardens of England, especially in the vicinity of London.

Thus prepared, the *Flora Americæ Septentrionalis*, or a *Systematic Arrangement and Description of the Plants of North America, by Fk. Pursh*, appeared in London in the year 1813, with 24 well-executed plates of new species, in 2 vols. 8vo. The specific characters are in Latin, the observations in English.

* We recollect when, many years ago, this gentleman did us the honour of a visit in England. He mentioned that his taste for natural history was induced by the perusal of an *imperfect* copy of Linnæus's *Systema Naturæ*, a work then scarcely known in America, and which he obtained from the wreck of a ship which was lost near the spot where he resided. Professor Peck afterwards became eminent, particularly for his knowledge of insects; and his communications to our great entomologist, the Rev. Mr. Kirby, are highly valuable. Many of these were published by Mr. Kirby, in the Transactions of the Linnæan Society, and amongst them the curious *Xenos Peckii*, an insect which inhabits the joints in the abdomen of the *Wasp*. Another insect nearly allied to this is the *Stylops Melittæ* of Mr. Kirby's *Monographia Apum Angliæ*, and which inhabits the same situation in the body of the *Honey bee*.

The arrangement is that of the sexual system; but the author has made considerable deviations from the generally received arrangement of the Linnæan school. The classes *Dodecandria* and *Polyadelphia* are omitted, as well as *Monœcia*, *Diœcia*, and *Polygamia*; and their genera are referred to other classes, some according to the number of stamens, others to his 19th class, which is called *Diclinia*, and which contains *Euphorbiaceæ*, *Amentaceæ*, and *Coniferæ*; thus bringing into his arrangement a union of a natural and artificial system, which has not been adopted by others.

Michaux's work included the whole of the class *Cryptogamia*; but this, though all perhaps that was then known, contained so scanty a list as scarcely to deserve notice. Mr. Pursh professes to go no farther than the order Filices of the class Cryptogamia.

Sometime after the publication of his Flora, the author again visited America, but with a view of confining his researches to a part which had been very little explored, namely Canada. There he died in 1820. His herbarium of that country, which was considerable, has been purchased by Mr. Lambert, who, we believe, is also the possessor of that far more extensive and valuable one which Pursh had made in his former travels in the United States.

In the year 1814, there appeared in America printed at Boston, the *Florula Bostoniensis*, or a Collection of Plants of Boston and its environs, by Jacob Bigelow, M.D. in 1 vol. 8vo. It is in English, and strictly arranged according to the Linnæan system. It was destined principally for the use of the students in Botany; and the plants described therein were all collected during two seasons, in the immediate vicinity of Boston, or within a circuit of from five to ten miles; and although very few new species are added the number of individuals is very considerable for so limited a space. During the year 1816, accompanied by our valued friend Dr. Francis Boott, Dr. Bigelow examined the botany of the White Mountains in New-Hampshire, and published an account of it in the *New-England Journal of Medicine and Surgery* for that year. This was one among many other journeys made by these gentlemen in the New-England States, with a view to the publication of a Flora of that district. The design, however, has been relinquished, and the principal cause, since it has arisen from Dr. Boott's naturalization among us, we ought not to regret. Science, however, has been a sufferer; for, from our personal knowledge of this gentleman, we are satisfied that he would have been a most able and zealous coadjutor in such an undertaking. A very extensive collection of the plants of that country has been liberally presented to us by Dr. Boott, which has satisfied us, that in the art of preserving specimens, no one has ever exceeded, or perhaps ever equalled him; and the names are very frequently accompanied by valuable notes.

It is delightful to see a man, of the talents and rank in life of Mr. Elliott of Charleston, the excellent President of the Literary and Philosophical Society of South Carolina, deeply engaged in important public affairs, yet cheerfully devoting his leisure hours to the promotion of the arts and of science, and actually engaged in publishing a Flora, under the unassuming title of a *Sketch of the Flora of South Carolina and Georgia*, which he commenced in 1816. This is arranged according to the Linnæan system, having specific characters both in Latin and in English, and very copious notes and descriptions. A work thus conducted cannot fail to be of great importance to the student of American botany; the more so, since the author has written from his own personal observation, depending little upon the assistance of others, and in a capital where science has not been so much cultivated as in the northern States. In a letter now before us, the author says, "no one in Europe can, probably, appreciate correctly the difficulty of the task in which I have engaged. The want of books, the want of opportunities for examining living collections or good herbaria, the want of coadjutors, have all served render my task arduous, and to multiply its imperfections." Nevertheless, there are many new species, described with great care and fidelity, and the grasses, which are accompanied with some neat plates, have particularly attracted the author's attention. There are several beautiful novel species, and some newly established genera. We have received of this work to the 6th No. of the 2d volume, which includes so far as the class *Monœcia*; and we are informed by Mr. Elliott, that another number will complete the *Sketch*. This we regret, as the work cannot thus take in the *Cryptogamia*; and we consider Mr. Elliott's talent for minute description admirably calculated for such plants as that class embraces. No man seems to be more strongly impressed with the value of the study of natural history than Mr. Elliott. "It has been, for many years," says he, "the occupation of my leisure moments; it is a merited tribute to say, that it has lightened for me many a heavy, and smoothed many a rugged hour, that beguiled by its charms, I have found no road rough or difficult, no journey tedious, no country desolate or barren—in solitude never solitary, in a desert never without employment. I have found it a relief from the languor of idleness, the pressure of business, and from the unavoidable calamities of life."

We come now to the agreeable employment of mentioning a very important work, both on account of the extended nature of the publication, and of the manner in which it has been executed; we allude to the *Genera of North American Plants, and a Cata-*

*logue of its Species to the year* 1817, *by Thomas Nuttall*," in 2 vols. 12mo. printed at Philadelphia. Mr. Nuttall is an Englishman by birth, and a native of Yorkshire; but he visited North America at an early age, and is now domiciliated in that country. His love of botany and mineralogy is exceedingly great, and a personal acquaintance, which his late visit to this country has enabled us to have the pleasure of forming, has only served to increase the esteem and respect which his writings had already taught us to entertain towards him. For many years previous to the publication of his Flora, the author was engaged in visiting very extensively the territories of the U. States, particularly the southern and western ones. "For nearly ten years," he says in his preface to his *Journal of Travels into the Arkansas territory*, "I have travelled throughout America, principally with a view to becoming acquainted with some favourite branches of natural history. I have had no other end in view but personal gratification; and in this I have not been deceived; for innocent amusement can never leave room for regret. To converse, as it were with nature, to admire the wisdom and beauty of creation, has ever been, and I hope ever will be, to me a favourite pursuit; and to communicate to others a portion of the same amusement and gratification has been the only object of my botanical publications."

The "*Genera of North American Plants*" is entirely in English; and it appears that it was the design of the writer to have arranged it according to the natural orders. But out of deference to public opinion, in a country where the artificial system of Linnæus had almost exclusively been studied, Mr. Nuttall adopted that method. He has, however, made a great many valuable remarks upon the natural orders, following several of the genera, and has recommended the adoption of some new ones. He has well defined the characters of the order *Monotropeæ*, to which he has properly referred the highly curious *Pterospora*. As, however, the well known genus *Pyrola* belongs unquestionably to the same family, the term *Pyroleæ* might perhaps have been considered as more appropriate. The characters of the genera (which he here extends to 807, exclusive of any cryptogamia,) have, as may be inferred from the title, occupied a greater share of attention from Mr. Nuttall. He has added to the essential characters, those taken from the habit of the plant, and he has noticed their geographical distribution. In the enumeration of species, he has included all that have been described by other authors, sometimes made observations upon them, and added a very considerable number of new individuals, which have been discovered by himself or his friends. This book may therefore be well said to form an era in the history of American botany, and we rejoice that the execution of it has fallen into such able hands.

Mr. Nuttall has added still more to his credit as a naturalist and a man of most acute observation, by the publication of his *Travels in the Arkansas territory*. This was a journey accompanied with great difficulty and not a little danger. The plants which he collected were numerous and interesting, very different from the vegetation of the rest of the United States, and many of them perfectly new. Some detached accounts of the botany of this singular district have already appeared, particularly in the *Journal of the Academy of Natural Sciences at Philadelphia*, and not a few of the plants themselves are now cultivated in our botanic gardens, from seeds gathered by Mr. Nuttall.

This gentleman now occupies the chair of Natural History in the University of New Cambridge.

We regret not to be able to give any account of *Eaton's Manual of Botany*, nor yet of *Barton's* more extended *Flora of North America*, (which is, we believe in the course of publication,) never having had the opportunity of seeing these works.

The various scientific journals which are published in America, contain many memoirs upon the indigenous plants. Among the first of these in point of value, and we think also the first with regard to time, we must name *Silliman's American Journal of Science*, in which we find Botanical Tracts by Professor Ives of Yale College, and by Mr. Rafinesque; by Dr. Torrey, a physician at New York, "on the plants collected by D. B. Douglass of West Point, in the expedition around the great lakes, and the upper waters of the Mississippi, under Governor Cass during the summers of 1818—20;" and also "on a new species of *Usnea* from New South Shetland," (*U. fasciata* of Torrey;) by Mr. Lewis de Schweinitz, in a valuable "Monograph of the genus *Viola*;" by Mr. Nuttall, on a "collection of plants made in the East Florida by Mr. Ware;" by Mr. M. C. Leavenworth, on "four new species of plants from Alabama;" by Professor C. Dewey of William's College, upon "*Carices*."

In the *Journal of the Academy of Sciences*, the Botanical Memoirs are entirely from the pen of Mr. Nuttall.

The *Annals of the Lyceum of Natural History of New York* were only commenced last year; but the numbers, (of which we have received five from that excellent institution,) contain several communications on the subject of Botany. In No. I. is a "Synopsis of the Lichens of the state of New York," by Mr. A. Halsey; and a description by Dr. Torrey of "some new and rare plants collected in the rocky mountains, during the expedition thither, commanded by Major

Long, by Dr. Edwin James;" in No. II. a "Synopsis of the *Carices*," by Dr. Schweinitz. No. III. contains an article "on the American *Utriculariæ*," by M. Le Conte, who enumerates 11 species. No. IV. "on the genus *Gratiola*," by the same author. No. V. "on the genus *Ruellia*," by M. Le Conte; and on "some new grasses found by Dr. James, on the rocky mountains," by Dr. Torrey.

Mr. Schweinitz, whom we have already more than once alluded to, is a native of Germany, where, as well as throughout Europe, he is advantageously known, in conjunction with M. Albertini, as the author of a Latin work on the *Fungi of Upper Lusatia*. Since his residence in America, he has continued to dedicate most of his attention to the fungi; and his manuscript, containing an account of 1373 fungi found in Upper Carolina alone, was edited by Dr. Schwaegrichen in 1823, under the title of "*Synopsis Fungorum Carolinæ Superioris*," in a thin volume, 4to; and it is not a little singular to observe how many of these are common to Europe as well as America.

We shall close our notice of American botanical publications by the mention of that, which, if we may judge from the first number, (which is all that we have yet received from the author,) bids fair to rank among the most valuable that has appeared in that country, the *Flora of the Middle and Northern Sections of the United States, by Dr. Torrey*. A frequent correspondence, and a mutual interchange of botanical specimens, have made us acquainted with the zeal and acquirements of this gentleman; both of which are now assiduously engaged in the preparation of his work, the continuation of which we anxiously expect. No. I. extends as far as, but not to the conculsion of, the *Class Triandria*, and *Order Digynia*; for here likewise the arrangement is that of Linnæus. The whole is in English. The synonyms are sufficiently copious, and the descriptive part contains much useful criticism and observation. We know, too, that Dr. Torrey has made a most ample collection of the cryptogamic plants of the United States; that he is well acquainted with the species and their characters and we may therefore confidently hope that this department of botany will now find a place in the Floras of North America.

*Additional Note by Dr. Mitchill.*—The Compendium of the Flora of the Northern and Eastern States by John Torrey M.D. is a moderate sized octavo of 403 pages, containing the genera and specific descriptions of all the plants, exclusive of the cryptogamia, hitherto found in Fredonia,* north of the river Potomac. It was published in 1826.

The Flora Astrica of Dr. Darlington is a very respectable performance, being an account of the plants found in Chester county, Pennsylvania.

Of professor Eaton's Manual which has had a wide circulation, a new edition is announced.

Horticultural Societies are useful in increasing a taste for botany as well as for practical gardening. These societies have increased within two or three years past, and they number among their members many scientific and practical men.

* Dr. Mitchill's classical name for the United States.—ED.

**ART. 92.**—*Imperial Mace Nut.—Extract of a letter from* GILBERT DAVIS *Esq. to Samuel L. Mitchill, dated New York, July* 15, 1829. [For the New York Farmer.]

"I have just received from the source of the Rio Madera, one of the principal branches of the Amazon river, by the way of the city Sabreal, twelve hundred ounces of the *Imperial Mace Nut*, a spice rare in its native country, and only permitted to be used by the princes of that vast and almost unknown region. The central part of the great Southern continent appears to be the only place where this precious aromatic was ever discovered, and that only by the natives. Its value was more than that of fine gold. The parcel in my possession is the property of a gentleman who has lately visited the neighbourhood. I send you a sample for your inspection.

**ART. 93.**—*Vegetable Physiology, with a View to Vegetable Culture.* By M. W. HERTZ, of Stuttgard. [From Gard. Magazine.]

SIR,—Vegetable physiology being one of my favourite sciences, I always took a great delight in reading any thing belonging to it; and as the germination of the seed particularly attracted my attention, I was very anxious to make myself in some degree acquainted with the phenomena and changes which take place during that process. I found in the *Horticultural Society's Transactions* (vol i. p. 217.,) a truly philosophical description of the processes of the infant plant; and in your *Encyclopædia of Gardening*, in Willdenow's *Physiology*, and in Decandolle's and Sprengel's *Principles of Scientific Botany*, this subject is treated of more circumstantially.

However, in all those books I did not find that any particular experiments were made on the mutilation of the germinating plant; but all the authors agree that, if the cotyledons are cut off, the young plant decays and perishes, and that they are to be regarded as the mammæ of the animals.

Fabroni, however, asserts that one and even both cotyledons may be cut off, without materially damaging the growth of the young plant.

One of these so different opinions must necessarily

be wrong; and, to ascertain the truth, I made several experiments, which I am going to communicate to you at length, and which, if you think them worthy a place in any one of your excellent Magazines, are very much at your service.

I think it not necessary to make an ample explanation of the construction of the seed, as every body may find it described in any of the books above alluded to, and in the *Encyclopædia Britannica*; but I will only confine myself to the account of my experiments, which will call forth, perhaps, a more physiological pen than mine.

I chose the common kidneybean (Phaseolus vulgaris) for the subject of my mutilations, because I considered it the best adapted for any purpose of that kind, and I sowed some of them in small pots.

As soon as the cotyledons made their appearance above ground, I cut off one of them, and found that the young plant continued to grow, though it evidently weakened it very much, and its growth was but slow, in comparison with another bean whose cotyledons I left untouched, and it wanted some time to recover itself from the sustained loss.

Another plant I deprived of both cotyledons, at the same time and under the same circumstances; and the plant ceased to grow, though it continued to be alive for nearly a week afterwards. I examined the plant, and found almost the whole radicle in a dry state, and the death of the individual was therefore unavoidable.

Similar experiments were made with the garden bean (Vicia faba,) and the same result followed.

I was now perfectly satisfied that the young plant cannot grow without the presence of one or both cotyledons, and that they prepare the first nourishment for the germinating seed.

My next experiment was to try if a young plant, when deprived of its roots, can continue to live. For that purpose, I separated the radiculum of a Vicia faba carefully from the cotyledons, and found, to my great surprise, that the young plant continued to grow although it suffered apparently a great check, and a new set of roots began to make their appearance.

This experiment sufficiently showed me that the young plants have the power of renovating their roots as long as the cotyledons are left untouched.

I was now desirous to know what effect it would have on the life of the individual, if the caudex ascendens were cut off. To gratify my desires, I deprived a Vicia faba of its caudex, which was about 2 inches high, and two little caudices shot forth, out of the corners of the cotyledons, one of which took the lead, and grew fast, but rather weakly; and, on nearer examination of a bean, I perceived two buds, one in each corner of the cotyledons, which our wise Creator did certainly make for no other purpose but that if the first grown caudex happen to be destroyed by birds or other animals, another should rise in its place and supply the loss of the first. But, in the last case, the roots grew to an uncommon size, and filled the whole pot. After all this, I turned the cotyledons of a germinated kidney-bean downwards, and the roots upwards, and, in a short time, the roots inclined towards the soil, and showed an inclination to resume their former position; and I have no doubt, that if I had continued my observations on it, I should have found the roots to take hold of the ground again, and turn the cotyledons upwards: but my experiment was limited to the question whether the plant can continue to be alive when in this position, and I found the bean, after a lapse of a week, in the same state of health as when I first planted it; which shows clearly that the cotyledons are able to absorb moisture through their veins, for the nourishment of the plant, also when its growth is already advanced.

The determination whether this last phenomenon of the root's inclination towards the soil can be called instinct, or whether it is a mere process of gravitition, I must leave to you and to your readers, who are abler physiologists than myself.

Should these experiments be thought deserving a place in one of your publications, I shall be highly gratified. I remain, Sir, &c.

*Kent, Sept.* 30, 1828. W. Hertz.

Remarks.—The above interesting observations strikingly show the importance of protecting plants when very young from insects.—*Ed. N. Y. Farmer.*

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**ART. 94.—*Threshing Grain—Calvin Emmons' Improved Threshing Machine.*** By the Editor.

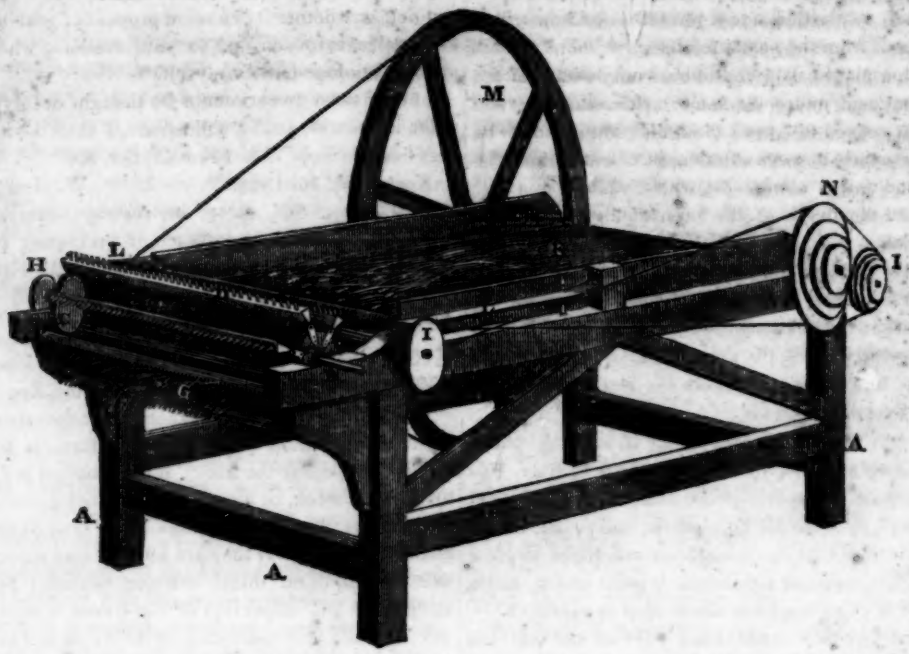
One of the most slow, laborious, expensive and wasteful operations performed on a farm, is that of threshing grain by the flail. If the laborers are hired by the day, week, or month, they will not generally, if they do the work well, average more than five or six bushels per day. If they are allowed one tenth, they will, indeed, often thresh out ten bushels; but the attendence and inspection of the owner is necessary to check the preponderating influence of self interest in slighting the work. Even in ordinary careful management on the barn floor, it is thought a quantity is thrown away with the straw equal to the seed. This waste added to the expense of threshing, is no small draw back on the profits of raising grain. The slowness of the operation too, not only withdraws the attention of the farmer from other important objects, but often prevents him from embracing a favorable state of the market.

These and other disadvantages suggested to the ingenious the importance of a machine that would avoid the drudgery and expense of the flail. Accordingly

in Europe, particularly in England, many attempts were made. Early in the eighteenth century, Menzies, of East Lothian, constructed a machine that operated by water. By the attention of one man it would do the work of six. It soon, however, fell into disrepute, the velocity of its movements injuring the grain. In the middle and latter part of the same century, other machines were constructed, being on the same principle of rubbing or pressing out the grain; but they were attended with the same objections.

In 1786, after numerous trials, Meikle, an ingenious mill-wright, made a great improvement on the then existing machines. He substituted the principle of beating for that of rubbing out the grain. Skutches or pins were fixed in a drum of the machine, which by their great velocity completely separated the grain from the straw. This machine continues in vogue at the present day in England, with the additional improvements of carrying off the straw, winnowing the grain, and of the yosking apparatus for the horses. It operates by steam, wind and water as well as horse power. The smallest, worked by two horses, and attended by three hands, will thresh and clear sixty bushels of wheat, and double the quantity of oats, in eight hours. The objection to Meikle's improvement is, that the power for the requisite velocity, makes the machine expensive, confining its benefits to the proprietors of extensive landed estates, and thus making it comparatively of no value in this country.

The desideratum of a cheap and expeditious machine has been obtained by American ingenuity. Several improvements have been made on Meikle's principle, and have been considerably used in the northern and middle states; but we know of no invention, that combines so many of the requisites for a perfect threshing machine as that of Mr. Calvin Emmons' of this city. It is portable, cheap, requires but moderate power, and does the work well and expeditously.




A A. The frame,
B. The beater shaft,
C. Circular heads placed on the shaft,
D. The beaters in which the iron teeth are inserted,
E. The teeth.
G. Circular or concave bed,
H. Whirl on the beater shaft, around which the band passes,
I I. Whirls on the feeding roler shafts,
K. Feeding cloth, on which the grain is put,
L L. Springs,
M. Main wheel,
N. Large whirl or main wheel shaft,

By having the pins in the revolving beaters, instead of having them firmly fixed in the drum, a less powe and velocity are required, and the machine is not liable to become entangled with the straw. These beaters strike about twenty-five times on each inch of straw; consequently it is almost impossible for a single kernel to pass through unseparated from the straw.

With hand power the machine threshed in our pres-

once, at the rate of six bushels of wheat per hour. With a horse the quantity is proportionably greater. By shifting the bands on the pullies which turn the feeding rollers, the unthreshed grain may be made to pass either slower or faster. From the experiments, which we witnessed with rice, we should suppose that the machine was equally well adapted for threshing that difficult grain. The rice was completely separated from the straw and the kernels unbroken.

Independent of the horse power, the machine will cost from twelve to twenty dollars. When taking into consideration, its cheapness, the facility of carrying to any part of the farm, the perfect manner of doing the work, and the quantity it will thresh in a short time, we hesitate not to recommend it to every farmer in the country, who devotes any attention to the raising of Grain.

Sir John Sinclair considers even Meikle's threshing machine the most veluable implement produced in modern times. He estimates the following advantages. 1. From the superiority of the mode one twentieth part more is gained from the same quantity of straw, than by the old fashioned way. 2. The work is done much more expeditiously. 3. The grain is less subject to injury. 4. Seed can be produced without difficulty from the new crop. 5. The markets may be supplied sooner in times of scarcity, or when it commands a high price. 6. The straw, softened by the mill, is more useful in feeding cattle. 7. If the grain be heated, it may be threshed before receiving injury. 8. The threshing machine lessens the injury from smutty grain, the bulb of the smut not being broken as when beaten by the flail. 9. By additional machinery, the grain may at the same time be separated from the chaff and small seed as well as from the straw.

On the supposition that 8,000,000 of acres are devoted to grain in Great Britain, Mr. Brown estimates the additional quantity obtained by machinery at 1,200,000 quarters, amounting to $11,000,000.—The saving in the expense of labor at one shilling per quarter, upwards of $5,000,000. This being a true estimate, of which we have no reason to doubt, some idea may be formed of the immense saving in this country, where such vast quantities of grain are raised and where labor is so very high.

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**ART. 95.**—*Remarks on the state of Agriculture in the United States since the Revolutionary war.*

[From the Memoirs of the Board of Agriculture of the State of New York.]

*Albany, 1st* Dec. 1825.

Sir,—Having for sometime past dismissed from my mind all attention to agricultural affairs, the promotion of which had engrossed my ardent devotion for many years, I now enter on the subject with some repugnance; and on the score of my advanced age, not without doubts of my ability to fulfil your expectations.

I shall take a succinct review of the progress and history of agriculture in the United States, since the close of our revolutionary war, and indulge myself in prospective anticipations. In taking this course, I trust your readers will consider this final effort to be useful to my country, with indulgence; and I fondly hope it may have some weight on the minds of future legislators, when I am at rest.

It is indeed a lamentable truth, that, for the most part, our knowledge and practice of agriculture, at the close of the revolutionary war, was in a state of demi barbarism, with some solitary exceptions. The labours, I may say, of only three agricultural societies in America, at that epoch, conducted by ardent patriots—by philosophers and gentlemen in this state, Philadelphia and Boston—kept alive a spirit of inquiry, often resulting in useful and practical operations; and yet, these measures did not reach the doors of practical farmers to any visible extent. Nor was their plan of organization calculated to infuse a lively spirit of emulation, which farmer—which county, or state—should excel in the honourable strife of competition in discoveries, and improvements in drawing from the soil the greatest quantum of nett profits within a given space; at the same time keeping the land in an improving condition, in reference to its native vigour. These results and the renovation of exhausted lands, by means of a barbarous course of husbandry, for nearly two centuries, are the cardinal points, now in progression in our old settled countries, stimulated by the influence of agricultural societies. Nor did their measures produce any essential or extensive effects in the improvement of the breeds of domestic animals; much less in exciting, to rival efforts, the female portion of the community, in calling forth the active energies of our native resources, in relation to household manufactures.

However ardent the patriotism of those gentlemen, to produce the great results already alluded to, (which may be considered as three essential columns to sustain our national glory and strength,) it is nevertheless evident that the course they pursued was inadequate to the end in view. It is also evident, when contemplating with an eye of patriotism, our astonishing progress as a nation, in those several branches for the last fifteen years, that under the former inefficient system, too much reliance was placed on the production of an annual volume on agriculture; which few read to much practical purpose.

The scene is now most happily reversed in all directions. Perhaps there is no instance in any age, or country, where a whole nation has emerged, in so

short a period, from such general depression into such a rapid change in the several branches to which I have already alluded; in some instances it has been like the work of magic. This effect has powerfully characterised the proud march of Berkshire in Massachusetts, and Hartford in Connecticut: but no where has it been so striking as in Schoharie county, in this state. Previous to the institution of their agricultural society in 1816, their precious flats, extending 28 miles on each side of the river, which traverses their county on an average depth of about one mile, with at least eight feet rich alluvial soil, had become totally inert by a wretched course of husbandry, ploughing never to exceed three or four inches in depth, and exhausting the surface soil, by one hundred and one years successive wheat crops, to that degree that the value of the crops was not adequate to the expense of cultivation. Foul weeds predominated; and the farmers who had been independent, became poor, with sheriffs at their heels. But how is it now? They plough deep, enjoy a virgin surface soil and luxuriant crops, as in days of old. All are now convinced, when this fortunate change shall become general, with the system of a rotation of crops, it will add to the aggregate wealth of the county, at least half a million of dollars. If this position be found correct, (and I hazard nothing in saying it is so,) I appeal to the candour of every patriot in the state, if the $60,000 which have been drawn from the treasury the last six years, for the promotion of agriculture, had been exclusively confined to Schoharie county, if the great object which has been attained there would not have justified the measure. This simple fact offers a powerful appeal to an enlightened legislature.

Taking ten millions two hundred thousand as the actual basis of our existing population, and limiting our conceptions to the close of the present century, we may safely calculate on at least eighty millions of American freemen at that auspicious epoch. All will be in active motion: our valleys, our hill-tops, our rivers and canals, and immense cities, all will teem with animated life—with a proportionate increase in wealth, science, literature and the arts; above all, in the amelioration of our agriculture and all the blessings in its attendant train. What a comparative millenium state is thus in preparation for our descendants! Far eclipsing any thing which has been exhibited on the face of this globe since time was—especially in the stupendous connection of inland oceans and numerous tributary streams, overspreading boundless regions with the Atlantic sea. Having reached this point in our anticipations, that mind which is callous to such an animating view, and is not stimulated to contribute to those proud results which await our beloved land, is unworthy of those attributes of intellect which should characterise every American, emulous of his country's glory.

In the midst of this enchanting reverie, we shall find cause of regret, that any check has been experienced in this fine state of New-York, in the march of our distinguished and pre-eminent career.

To descend to points, and thus reach the two leading objects of this communication, I will observe,

*First*—On the subject of renovating our agricultural law, to be improved and perfected by a liberal experiment of six years, and in direct connection therewith.

*Second*—The institution of a pattern farm, to be ingrafted on the leading principles of the celebrated establishment at Hofroul, in Switzerland; greatly enlarged, on a scale commensurate with the peculiar genius of our countrymen.

On the first article, I shall be brief, inasmuch as I can safely appeal to every county in this state, as to the general utility of agricultural societies; varying in degree and extent to localities, the density and intelligence of the people, and the various characteristics of a heterogeneous population. Whereas, in New-England, the population is unmixt—of pure English blood and sinew; and therefore more easily directed by a spontaneous impulse; especially where a conviction has taken deep root, that their interest is obviously to be promoted.

It is a lamentable truth, that a want of information was productive of violent opposition in the first enactment of the law in promotion of agriculture; arising also from ill-founded jealousies of some few farmers of contracted minds, who considered every innovation on the practice of their fathers, a departure from the path of perfection, as it existed in the several countries of Europe, from whence they emigrated nearly two centuries ago; whereas, in those very countries, it has been in a progressive state of improvement, since those dark days of ignorance and superstition, while we remained at a stationary point to the close of the revolutionary war.

In every stage of the six years of experiment, the opposition to the law increased, and finally it was permitted to expire, by its own limitation, in 1824. This opposition became outrageous, even with some farmers, members of the legislature; as though the fate of the state was implicated in the expenditure of ten thousand dollars a year, to promote its vital interests: whereas, we find that the enlightened patriotism of the legislature of Massachusetts, has provided means to perpetuate these institutions in every county of that state, by liberal provisions. This opposition had its most rancourous incitement by involving the system in the destructive and poisonous vortex of party politics, with which it is in no wise connected. Candour and truth, also, impel me, to

admit, that many of our counties had just cause of disgust and opposition, owing to the scandalous frauds and meanness committed by many base individuals in reference to the distribution of premiums; thus perverting the spirit, and magnanimous views, of the patriotic ligislature of 1819; who were impelled, by the novelty of the subject, to take a leap in the dark—treading untrodden ground. Should our wise law makers of the present day see cause to revive the law, the salutary lessons of experience of six years will enable them to shun its defects; being guided by the lamp of experience to enlighten their course.

On the second point, much may be said—on the subject of a grand agricultural establishment—a pattern farm, (so called,) with connected branches spreading over every section of the state, in agricul tural departments to be organised. I shall, therefore, on this prolific theme, on which I delight to dwell, briefly remark, that the system cannot be carried into effect short of an annual appropriation of $50,000. This frank admission, I am well aware, will be fatal to the attempt in the present moment; and yet a foundation may be laid: and when we cast our eyes a little way in advance, we shall find our canal debt extinguished, leaving a nett income of a million of dollars a year; independent of liberating those branches of revenue now appropriated in aid of that result, which will probably amount to half a million more.

Here let me triumphantly ask, even of the most sceptical man in power, to what can a portion of this immense revenue be so aptly appropriated, as in the extension and improvement of our agriculture, household manufactures, and the amelioration of our domestic animals? connected with an agricultural and scientific seminary; to introduce a system of education, calculated to make useful and practical members of society; men of virtuous and moral habits. Such a beneficent system, connected with our splendid canals, will place this state, single handed, in power and opulence, in the range of a splendid empire in Europe.

But when we enlarge our contemplation on the grand scale of the United States, in the aggregate, we become, in a measure, lost and bewildered in the review. In all probability, our national debt will also be extinguished in ten years, leaving an immense revenue of thirty millions per annum, subject to the direction of congress, in a vast system of internal improvements. And here let me again ask—will not the promotion of agriculture and the arts, engrafted upon a high-toned national education, be embraced and fostered, as prominent objects; parvading every section of the United states—cementing the whole, by the most endearing ties, as a band of brothers? In this event, it is even doubtful if a concurrence in these salutary measures on the part of this state, however desirable, will even become necessary.

Let us now extend our anticipations into the womb of time, when the population of the United States shall have attained upward of eighty millions, in seventy-five years. This state will then approach one-tenth of that number; equivalent to one hundred and eighty persons to each square mile; which will place us, in that respect, above the present average population of Great Britain, France, and Holland, which is one hundred and sixty-seven.

At all events, a concurrence, and the abundant means within our reach, will most certainly be productive of a grand national agricultural and literary institution, to be located in the vicinity of Washington, with subordinate branches in each of the states. Such an institution will eventually promote great national good. It will, in some measure, effect a revolution in our national system of education, and evince the absurdity, nay, folly, in slavishly adhering to the long established European system of education, which goes to the full extent of devoting all our literary institutions to one settled system of instruction; *wasting away* a precious portion of the time of our youth, indiscriminately, in the attainment of the dead languages. I boldly repeat—*wasting away*—unless in a view of some learned profession.* Instead of which, at these national seminaries, those youth who are destined to the plough—to the arts and sciences, as well as to literary fame—will be enabled to ingraft on a liberal education, such other essential acquirements as will qualify them to become useful citizens, moving in their respective spheres, each possessed with a practical knowledge of the rudiments of his calling; to which, by his genius or talents, or the peculiar cast of his mind, it is evident the great God of nature destined him to act, in his day and generation.

Without presuming to enlarge, I will conclude by asking, among the millions who have been born, and now lie mouldering in the dust, within the borders of ——

* We dissent from the views of the writer. The study of the *Dead Languages* has been for so many centuries connected with the progress of the human mind in literature and science, that a complete general education is absolutely unattainable without a knowledge of them, particularly of the Latin. The *waste* consists in the limited privileges enjoyed, even at this day, in many of our colleges, of becoming initiated in practical sciences, and the various branches of Natural History. But since the early days of Mr. Watson, the desirable improvements have been gradually introduced into many of our seminaries. We would as soon think of dispensing with the Latin Language in educating a youth for one of the professions, as we would for an agriculturist. The preacher can excite us to do good, and the farmer can raise fine grain, without ever having studied the *Dead Languages*, but we "boldly" say they are equally useful for the one as the other—they are the corner stones—lay these, and then superstruct according to the object in view.—*Ed. N. Y. Farmer.*]

the United States, and who spent the best hours of their youth in attaining a knowledge of the dead languages, what proportion of them have been benefited by the acquisition? or, in what has their country been benefited, with the exceptions already mentioned?

I am, with great respect,

ELKANAH WATSON.

To J. BUEL, *Esq.*
*Secretary of the Board of Agriculture.*

[The following article is taken from Dr. Godman's American Natural History. To our readers generally, and to farmers in particular, it can not fail of being interesting. To the latter we deem an acquaintance with our native wild animals, particularly when belonging to a domestic genus, of importance. It has been suggested that our working breeds and that of the American Ox (Bison) could be crossed to advantage. It is possible also, that the hardy Musk might be used for the same purpose.]

**ART. 96.**—*The Musk Ox,—Bos Moschatus.*—[Called Muthek Mongsoo, or Ugly Moose, by the Crees,—Uming Mak, by the Esquimaux.]

To civilized man, the extreme northern regions may appear cheerless and uninviting, because they are subjected to the almost unrelenting influence of wintry skies. Yet we have already seen that they are the favourite resorts of multitudes of animals' varying in size, characters and habits, from the Lemming to the Moose. A species remains to be described, which, of these forbidding regions prefers the most barren and desolate parts, and is found in the greatest abundance in the rugged and scarcely accessible districts lying nearest the North Pole. This species, so far from being condemned to a life of extreme privation and suffering, appears to derive as much enjoyment from existence, as those which feed in more luxuriant pastures, or bask in the genial rays of a summer sun.

In destining the musk ox to inhabit the domains of frost and storm, nature has paid especial attention to its security against the effects of both; first by covering its body with a coat of long dense hair, and then, by the shortness of its limbs, avoiding the exposure that would result from a greater elevation of the trunk. The projection of the orbits of the eyes, which is very remarkable in this species, is thought by Parry to be intended to carry the eye clear of the large quantity of hair required to preserve the warmth of the head.

Although some few items relative to this animal are to be gathered from the works of the recent explorers of the Northern Regions, it is to Hearne, that we are almost exclusively indebted for the Natural History of the musk ox, as we have already been for most of the animals inhabiting the same parts of this continent. This excellent and accurate observer travelled, in the years '69, '70, '71, and '72, and it is only to be regretted that he did not write down all he knew in relation to the northern animals. He appears to have frequently thought that what was so familiarly known to him, would not be of much interest to others, and has thus withheld knowledge that few individuals can have a similar opportunity of gaining. Notwithstanding this, he has anticipated all the recent explorers in every essential particular.

Hearne states that he has seen many herds of musk oxen in the high northern latitudes, during a single day's journay, and some of these herds contained from eighty to a hundred individuals, of which number a very small proportion were bulls, and it was quite uncommon to see more than two or three full grown males, even with the largest herds. The Indians had a notion that the males destroyed each other in combating for the females, and this idea is somewhat supported by the warlike disposition manifested by these animals during their sexual season. The bulls are then so jealous of every thing that approaches their favourites, that they will not only attack men or quadrupeds, but will run bellowing after ravens or other large birds that venture too near the cows.

Musk oxen are found in the greatest numbers within the artic circle; considerable herds are occasionally seen near the coast of Hudson's Bay, throughout the distance from Knapp's Bay to Wager Water. They have in a few instances been seen as low down as lat. 60° N. Capt. Parry's people killed some individuals on Melville Island, which were remarkably well fed and fat. They are not commonly found at a

great distance from the woods, and when they feed on open grounds they prefer the most rocky and precipitous situations. Yet, nothwithstanding their bulk and apparent unwieldiness, they climb among the rocks with all the ease and agility of the goat, to which they are quite equal in sureness of foot. Their favorite food is grass, but when this is not to be had they readily feed upon moss, the twigs of the willow, or tender shoots of the pine.*

The appearance of the musk ox is singular and imposing, owing to the shortness of the limbs, its broad flattened crooked horns, and the long dense hair which envelopes the whole of its trunk, and hangs down nearly to the ground. When full grown, the musk ox is ten and a half hands high, according to Parry, and as large as the generality, or at least the middling size of English black cattle; but their legs though large, are not so long; nor is their tail longer than that of a bear, and like the tail of that animal it always bends downwards and inwards, so that it is entirely hid by the long hair of the rump and hind quarters. The hunch on their shoulders is not large, being little more in proportion than that of a deer. Their hair is in some parts very long, particularly on the belly, sides and hind quarters; but the longest hair about them, particularly the bulls, is under the throat, extending from the chin to the lower part of the chest, between the forelegs; it there hangs down like a horse's mane inverted, and is full as long.

The winter coat of the musk ox is formed of two sorts of hair, which is generally of a brownish red, and in some places of a blackish brown color; the external being long, coarse, and straight, and the internal, fine, soft and woolly. The outer hair is so long that it hides the greater part of the limbs, causing them to look disproportionately short. As the summer comes on, the short woolly hair is gradually shed but the summers are so short in these high latitudes, that the woolly coat commences growing almost immediately after the old coat is shed, so that the entire winter coat is completed by the return of the cold weather.

From the shortness of the limbs and the weight of the body, it might be inferred that the musk ox could not run with any speed, but it is stated by Parry, that although they run in a hobbling sort of canter that makes them appear as if every now and then about to fall, yet the slowest of these musk oxen can far outstrip a man. When disturbed and hunted, they frequently tore up the ground with their horns, and turned round to look at their pursuers, but never attempted to make an attack.

The month of August is the season in which the musk bulls are most disposed to combat, as they then fight furiously with each other for the females and are jealous of the approach of every thing as already stated. The cows calve about the end of May or the beginning of June: the calves are frequently whitish, but more commonly marked by a white patch or saddle upon the back.

The musk oxen killed on Melville Island during Parry's visit, were very fat, and their flesh, especially the heart, although highly scented with musk, was considered very good food. When cut up it had all the appearance of beef for the market. Hearne says that the flesh of the musk ox does not at all resemble that of the bison, (*Bos Americanus*) but is more like that of the moose, and the fat is of a clear white tinged with light azure. The young cows and calves furnish a very palatable beef, but that of the old bulls is so intolerably musky, as to be excessively disagreeable. A knife used in cutting up such meat, becomes so strongly scented with this substance, as to require much washing and scouring before it is removed. Musk ox flesh when dried, is considered by Hunters and Indians to be very good. "In most parts of Hudson's Bay it is known by the name of Kew-hagon, but amongst the Northern Indians it is called Achoes." The weight of the musk ox, according to Parry, is about 700 lbs. that of the head and hide is 130lbs.

The horns of the musk ox are employed for various purposes by the Indians and Esquimaux, especially for making cups and spoons. From the long hair growing on the neck and chest, the Esquimaux make their musquitoe wigs, to defend their faces from those troublesome insects. The hide of the musk ox makes good soles for shoes, and is much used by the natives for this purpose.

During the months of August and September the musk oxen extend their migrations to the north Georgian and other islands bordering the northern shores of the continent. By the first of October they have all left the islands and moved towards the south. By Franklin's expedition, they were not seen lower than 66° N. tho', as we have before stated from Hearne, they are occasionally seen as low as 60°.

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The Indiana Whig mentions a slaughter made among the serpents in that neighborhood. About 420 rattlesnakes were massacred in three or four attacks.

* It is singular and well worthy of observation, that the dung of the musk ox, though so large an animal, is not larger than, and, at the same time, is so nearly of the shape and colour of the Alpine Hare, that the difference is not easily distinguished except by the Indians, though the quantity generally indicates the animal to which it belonged. In the country adjacent to the coppermine River, long ridges of this dung, together with that of deer and other animals were seen by Hearne. Similar appearances were observed by Parry on several of the North Georgian Islands.

ART. 97.—*Practical Instructions and Directions for Silk Worm Nurseries, and for the Culture of the Mulberry Tree.* Dedicated to the American Institute of New-York. By FELIX PASCALIS, M. D. New York, 1829. Part 1st.—Price 50 cents.

No person, perhaps in the United States is better qualified to give instructions on the cultivation of Mulberry Trees, and on the management of silk-worms, than Dr. Pascalis. He is a native of that part of France which, derives much of its wealth from the mulberry tree, and of course familiarly acquainted with the management of both the tree and the silk worm. Independent of this source of information, he has paid much attention to the subject since he has resided in the United States, in collecting information from various parts of the country, and by making the natural history of the silk worm, a prominent and favourite object of investigation. Had we leisure, we should be pleased to speak more at large on this work, but the above facts, and the known celebrity of the author, will authorise us in making extracts without any further observations of our own.

The following shows in strong terms the importance of the subject in point of

*National Wealth.*

"In order to draw," says Dr. P. in his dedication, "an estimate of the different kinds of produce in relation to national wealth, let us be permitted to take that of silk only, which in the year 1827 was officially reported in parliament to have been of the quantity of 3,760,000 lbs. England is not a silk district, but she purchases the material for her manufactures, commerce and consumption. She can even afford to purchase the richest manufactured silks of France at a duty of 30 per cent. according to the late treaty with Charles X.

The silk districts of France, Spain, Italy Switzerland, and of the Greek and Turkish dominions, (India excepted), may be presumed without exaggeration, to consume three times the above quantity; that is 15,240,000 lbs. the original price of which, brought to the standard of our money, would be equal to $91, 440000, his is therefore the estimate of only one produce and article of commerce, in favor of the old and against the new world, and excepting East and West Indies, the Brazils, and the Anglo American provinces, which are still colonies of Europe. It will not be necessary for us now to exhibit what proportion of that immense capital affects the United States as a commercial nation; as we intend only to infer that the loss to the gain, if the States could become silk districts and regulate their commercial relations with the independent governments of South America, they would reap such annual surplus out of the $91, 440,000 as is placed against the whole American products and consumption; besides the profit arising from their own manufactures. The proportion of expenditure for silk only, was formerly in the United States, $8,104,837; it is now $10,000,000, at least. *Vide Act of Gen. Convention in Harrisburg*, 1827.*"

In his preliminary discourse, we find the following summary of the national and individual

*Advantages of the Silk Culture.*

"1*st.* The article of silk added to the other pursuits of agriculture, the more enhances the value of land, that, by it such parcels as are poor and waste can be profitably employed.

2*nd.* Said produce or staple of standard value according to its quality, is always exchangeable in commerce in all its several conditions, as it is neither perishable nor corruptible.

3rd. It is a material for the manufacture of all kinds of filature, for raw silk, of machinery for weaving warping; for building a variety of looms, bringing into use every process of dying, &c. which business being divided and subdivided, affords numerous branches of mechanical industry, by which immense populations in Europe are now prosperously supported.

4th. Nurseries of silk worms create also various branches of business among the poorer classes; the making of hurdles, frames, baskets, &c. gathering mulberry leaves and brush wood, detaching and cleaning cocoons, and many other sorts of employments incident on the management and completion of the culture, as if every individual of the poorest community could not fail reaping from it some advantage and benefit.

This is not an exaggerated exposition, and it would be a very easy task to embelish it, especially by representing its diffusion throughout a rational, industrious, and well governed community; and instead of being superfluous, the smallest item advanced, each detail would be a delineation of innumerable sources of the prosperity of a large and powerful commonwealth. Yet some inquiry might be urged respecting the specific benefit that could be depended upon, as arising to each farmer's family from the culture of silk? To answer which, we should not separate the cares of a mulberry plantation from those of a silk nursery. A clear headed industry can well unite both, and a farmer should be contented to supply his neighbors with a crop of mulberry leaves, when he could not use the whole of it himself: the same would not be useless if not called for, as it is an excellent fodder for cattle, or even a proper substance for rich manure. We may further show in succeeding pages, how an ordinary orchard planted with one hundred grown standard trees, on two acres of ground, can produce 10 thousand pounds of foilage, the value of

* Importations of Silk into the United States in 1825, amounted to $10,271527. *Vide report of Com. on Agri. to Cong.*

which would be equal to 100 dollars; that, much less than that quantity is convertible into six hundred lbs. cocoons, worth at least three hundred dollars, which would engage the cares of his family no longer than forty days."

After stating that numerous varieties of the mulberry are found in north America, and giving his opinion against the idea of the white mulberry being exclusively a native of China, the author states the following facts in relation to the existence of the white kind in our forests.

"With respect to north America, the supposed exotic nature of the white mulberry is but a surmise and equally questionable. The plant was no doubt propagated by the mother country in these colonial provinces; in Virginia, Georgia, but not beyond the moutains, in the valley of the Mississippi, and the fertile region watered by that river in Lousiana. We are also informed of the existence of the best sorts of that genus, in the state of Missouri. Mr. Schoolcraft, the traveller, saw it in the forests on the Maumee, 41° of latitude, and discovered upon it the silk caterpillar, very voracious of the leaves, and which had perfected its silk ball; the description he gives of that insect would challenge the most sceptic entomologist. The ancient French colonists from the river St. Lawrence, along the Mississippi to the Atlantic Gulph, certainly never busied themselves with introducing the mulberry plant into those forests. Other species of the same, such as the *Morus Rubra*, the *Tinctoria*, the *Papyoifera* or *Broussonetia*, are unquestionably indigenous, and by the same reason, the white and the black may have been planted by the author of nature in the immense forests of this country. With pleasure we avail ourselves in this question of the testimony of an experienced horticulturist, John Adlum, Esq, of Georgetown, who has seen the native tree in various distant and extensive continental latitudes; who by the inspection of the soil and circumjacent indications, could not be supposed to be at a loss to determine whether the hand of nature or that of art had distributed it over this continent. His select specimen we had the pleasure to examine ourselves, and to compare, so far as to acknowledge the *Morus alba Americana*. There cannot therefore be any difficulty in the farther raising and propagating the best sorts of this plant from the most meridional latitudes of these states, up to the highest, even to 43°, there being already large nurseries of it in the 41st, which as is well known, differs in temperature from the like in the old world, at least by seven degrees; and let us not be mistaken when we lay great stress on the art of the cultivation of that plant; it is not so much for its growth and preservation, for neither is difficult or doubtful; it is in view only of its abundance and productiveness and for maintaining it of the best quality."

An idea of the practical nature of Dr. P's work on the rearing of the mulberry may be obtained from the following subjects of the chapters.

On Mulberry Trees.—On Mulberry Plantations or Orchards.–On care and tillage of the Mulberry tree in Plantations.—Diseases of the Mulberry Tree.—On Mulberry Hedges.—On the mode of Plucking Mulberry Leaves.—On various modes of Propagating the Mulberry Tree.

A considerable remaining part of the work is devoted to an interesting account of the Natural History of the Silk Worm.

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**ART. 98.**—*The Importance of wholesome Water to Cattle.* [From White's Compendium.]

I lately visited Dr Jenner. The Dr. condecended to converse with me on the diseases of cows, and he informed me, that giving wholesome water to cows was of more importance than the public is aware of. He told me there was a farm in the neighborhood, where three or four farmers had sustained so much loss from abortions in their cows, from red water and other diseases, that they were either ruined or obliged to give it up. The present occupier suspected that the water they drank was the cause of the mischief, and therefore sunk three wells on different parts of his farm, and pumped the water into troughs for the cattle. The ponds were fenced round to prevent them from getting at the water, so that they drank only from the troughs. Since that time the farmer has not had a single abortion or one case of red water. His cattle have been free also from swollen udders; and what is of more importance, he makes more cheese, and his cheese is greatly improved in quality. The Dr. wished me to visit the farm, which I did, and another at a short distance. I found that the usual mode of watering cattle, where there was no brook or running water, was from a pit of stagnant rain, or spring water, to which the cattle had access by means of a sloping path on one side only. It has been observed that cattle, immediately after drinking, dung or make water, and almost always before leaving the sloping path—the dung and urine therefore flow into the pond, or are washed into it by the rain, and make the water so impure, that it has been found to kill eels, and nothing but noxious insects can live in it. The disgust which such water must excite in animals accustomed to drink from brooks, is gradually overcome in a great measure, and they sometimes drink it without appearing to suffer; but the influence it has upon the animal's health is strikingly shown on this farm. On visiting the other farm, where the cows had been prevented from drinking this pond

water only six months, the beneficial effects of drinking wholesome water was sufficiently obvious to demonstrate its utility. Before that time, they were frequently meeting with red water and swollen quarters; that is, a swelling of a part of the udder; but since the cows had drinked pure water, not a case of either had occurred.

**ART. 99.**—*Interesting experiment in feeding Silk Worms with Maclura. Copy of a letter from* T. M. FORMAN, Esq., *to* W. PRINCE, Esq., *of the Linnean Garden, dated Rose Hill, Md. July 15th* 1829. [Read before the New-York Horticultural Society.]

DEAR SIR,—You requested me to make the experiment, of feeding the Silk Worm upon the *Maclura*—Chance put in my possession a great number of eggs, which placed upon the shelf of a remarkably dry cellar, were quite forgotten. When attended to, a great proportion were hatched, and of these nearly all had perished, but enough were saved to prove most inconvenient and troublesome, as no preparation had been made for their accommodation. From the first worms in their earliest stage, after being hatched, I selected a parcel, and immediately commenced feeding them with the Maclura; while all the others were fed with our native Mulberry, with which our own country abounds. Perhaps the Maclura worms were rather better attended to; if so, it was accidental, and not intentional. I can, however, assure you, that they grew faster and completed their cocoons from 10 to 15 days before the mulberry worms. I had taken 45 worms, and had 39 cocoons: What became of the other six I cannot say. On Wednesday next I shall send to D. Kayle & Co. a small box to be forwarded to you, containing some of the Maclura cocoons. You will please complete the experiment, by ascertaining from some experienced judge, what is the quality of the silk.

Be assured of this, that if the quality is equal, the Maclura is the plant to cultivate; it can not be injured by clipping; the size of the leaf is a strong recommendation; it is infinitely the handsomest tree, and will make the most impenetrable hedge, or most ornamental standard tree—and if the fruit makes the splendid appearance which is reported, there can be no comparison. The foliage is the most dense of any known tree, and the leaf is as brilliant as that of the orange. I am, Sir,

Your obedient servant,

T. M. FORMAN.

N. B. Owners of extensive nurseries should make the experiment, say with 100 worms, each parcel hatched on the same day, fed with the white and native mulberries and the Maclura; the cocoons to be preserved carefully separate, and placed for winding in the hands of a competent judge of the quantity and quality of silk.

**ART. 100.**—*Cultivation of the Vine in the United States.* By the EDITOR. [Continued from p. 134.]

After having presented to our readers as many facts as we could conveniently collect, respecting the cultivation of the Vine, the next step which we deemed important to take, was, to obtain the opinion of practical men on the subject. The following letter is an answer to queries put by the Editor to the writer.

Murray Hill Nursery, July—, 1829.

SIR,—I have received the three very interesting queries you sent me, concerning the cultivation of foreign Grape Vines in this country. I might return you my answers in the same laconic style; but I assure you, I consider the subject of far too great importance, as well as far too little understood, to justify any thing like the final decision you require. First: "Can capital be profitably invested in cultivating foreign Grape Vines in this country?" I answer, that from all the information and experience that I have been able to collect, I conclude that no man in America, in our present state of horticultural knowledge is qualified to give a decisive or correct answer. It is well known that great efforts in the culture of the Vine have been made in various parts of this country by eminent Vignerons from France and Switzerland, and other countries, without proving successful. Ignorant horticulturists are ready to stamp their seal of the utter impracticability of all future success. What, I would ask, would have been the state of our improvements in the culture of the Cauliflower and Brocoli, had the doctrines of such men been listened to some ten or twenty years ago? Or what profit would any man have made in raising Brocoli in those days? The Grape Vine could never possibly have been less profitable; yet, at this present day no vegetable that is raised for market, I am persuaded pays the cultivator better. To your 2*nd* query, "Is their failure owing to the climate, or to improper cultivation? I answer unhesitatingly, it is owing to the latter. I could fill a whole number of your Repository in stating facts and well grounded arguments to justify my opinion; but for the present, I shall only refer any sceptic to the statement of W. Wilson Esq., of Clermont, on his completely successful method of cultivating some of the most tender and delicious kinds of foreign table Grapes, as published in the first No. of the first vol. of your Repository page 4. Mr. Wilson, as he states, took the successful hint for cultivating his vines from the hand of

nature. And I am persuaded there is scarcely a wood to be found in America, from which the best Vignerons from Europe might not learn a lesson. All the laws of vegetation in this country seem to be of a specifically American stamp, and those only who have the wisdom to discover and acquiese with them, can succeed in their horticultural improvements.

To your third query: "What foreign Grape Vines have been most successfully cultivated in the United States?" I reply, the most extensively and successfully cultivated sorts that I have seen, are the Sweet-Water, the Chasselas, the Muscadine, the White Tokay, the Black Hamburg, the Blue Cortiga, the Miller Burgandy, the Austrian Muscadel, the Messlier, the Morilon, Blanc, and some excellent seedling sorts from the imported Lisbon Grapes, raised and grown to great perfection in this City.

I am, Sir,

With great respect,

WILLIAM WILSON.

Mr. A. Smith, seedsman and nurseryman, on whose judgement in practical horticulture much confidence is to be placed, agrees with Mr. Wilson, that investments in foreign vines would afford a precarious income except in some favorable localities. He considers the failure in cultivating them, to be attributed to the climate, rather than to any deficiency of horticultural skill, and founds his opinion on the fact, that the most able vignerons of Europe, after several years of exertions in this country, have been obliged to relinquish their culture. Mr. Smith gives the following among those which have generally succeeded the best; Golden Chasselas, Black Prince, Black Hamburgh, Dutch White Sweet Water, Miller Burgundy, and Meslier. (To be continued.)

**ART. 101.**—*Sovereign Remedy against Mildew in Grapes. Letter from* W. PRINCE, *to* J. S. SKINNER Esq. Dated Linnæan Bot. Gar. July 6, 1829.

SIR,—I now transmit you the remedy against mildew, the effects of which I have witnessed so as fully to convince me of its adequacy. Mr. Samuel R. Johnson, of Mass. is the gentleman who first communicated to me the information.

Take a pint and a half of sulphur and a lump of the best unslacked lime of the size of the fist, put these in a vessel of about seven gallons measurement, let the sulphur be thrown in first, and the lime over it, then pour in a pail of boiling water, stir it well, and let it stand half an hour, then fill the vessel with cold water, and after stirring well again, allow the whole to settle—after it has become settled dip out the clear liquid into a barrel and fill the barrel with cold water, and it is then fit for use. You next proceed with a syringe holding about a pint and a half, and throw the liquid with it on the vines in every direction, so as to completely cover foilage, fruit and wood—this should be particularly done when the fruit is just forming and about one third the size of a pea, and may be continued twice or thrice a week for two or three weeks— the whole process for one or two hundred grape vines need not exceed half an hour.

In order to fully test the above, the process has been pursued in some cases with only half of a vine, and omitted towards the other half; the result was, perfect fruit on one where absolute failure attended the other Some persons use sulphur in a dry state, which is thrown on with a bellows suitable for the purpose, but the liquid preparation is far superior, and I think will prove that we are at last complete masters of the mildew. Yours, very respectfully,

WILLIAM PRINCE.

**ART. 102.**—*Description of a beautiful Greville Rose. Letter from* J. B. SMITH *of Philadelphia, to* W. R. PRINCE, *of Flushing.* [Read before the New-York Horticultural Society.]

*Philadelphia, 15th July,* 1829.

DEAR SIR,—Having not seen or heard lately of any description of the Rose Greville. I almost concluded that mine was the first that had flowered, or that I had the best success. In the beginning of last month a few clusters began to open very indifferently. I was much displeased with it, but a few days afterwards it flowered to my utmost satisfaction, immense numbers of clusters of from 10 to 20 roses each, there were in some clusters as many as 13 different shades very distinct, in others 4 to 9, from a dark purple to a very tender blush, there were clusters of blushes only, likewise purple and scarlet, but all of different shades. It was pronounced by a number of gentlemen to be the handsomest and most curious of all the roses; even the most indifferent could not help to admire it, for every cluster formed a beautiful bouquet. The roses are somewhat larger than the common multiflora. Some are as double, others not so much, but even the semi-double, had their merit, for their bright yellow stamenas in numbers, surrounded by their purple, scarlet, or blush petals, were very handsome.

This is the rose I purchased of you about eighteen months since, and planted it on the east side of the house with the Multiflora, Lady Banks, and Champeny Roses, all in one row, and left them unprotected by straw &c. during the last severe winter; the result was that I lost the Lady Banks totally, the multiflora and Champeny to within six inches of the ground; the Greville lost 6 inches from the top, it was 16 ft. high last fall.

I address you this in the hope that it may be agreeable to you; have the kindness to excuse the faults. I write to you in a foreign language to my own, and am no botanist.

Respectfully yours,

JOHN B. SMITH.

*W. R. Prince Esq. Flushing, L. I.*

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**ART. 103.**—*Proceedings of the Inspecting Committee of the New-York Horticultural Society.*

[Continued from page 148.]

*June* 30, 1829.—Mr. W. Curr, a beautiful specimen, in full flower, of Yucca filamentosa.

Mr. Warner, fine scarlet Lychins, Antwerp Raspberries, 12 Gooseberries, weighing 3 oz. 4 dwts.

Mr. Wilson, a beautiful Bouquet of fine Roses, white Lilies, clove Pinks, and other kinds.

Mr. Parmentier, beautiful flowers, among which were a new seedling Bee Larkspur, Silver-leaf Willow, Double Pinks, Crinum Uniflorum from Mexico, and other interesting specimens.

Mr. Hogg, a splendid show of flowers, among which, 4 sorts of Carnation, 6 varieties of Hollyhock, Champney's cluster Rose, Rosa rubifolia, Coriopsis verticillata, Digitalis alba, var. and several sorts of Lilies.

Mr. Probyn, some Champney's cluster Roses, lake and crimson Carnation.

Mr. Groshon, dark Hollyhock and Fruit.

Mr. Curr, one head of Cauliflower, weighing 6 lbs. 2 oz., one do. 4 lbs. 12 oz.

Mr. A. Smith, 4 quarts of Knight,s marrow Peas, tall and dwarf varieties, very fine.

*July 7th.*—Mr. W. Phelan several varieties of flake and crimson Carnation, beautiful Antwerp Hollyhocks, Verbena triphylla, Digitalis alba, Veronica spicata and other specimens.

Mr. Levi Kidder, very beautiful seedling flake and crimson Carnations, No. 2.

Mr. Wilson, Cimcifuga serpentaria, Epilobium coloratum, 2 doz. varieties of China roses, and very fine Antwerp Raspberries.

Mr. Probyn, two sorts of Carnations.

Mr. Curr, very fine Salsify.

Mr. Warner, muirpark Apricots, measuring each 6 inches in circumference.

Mr. Prince, from the garden of Mrs. Winter 12 Gooseberries, weighing 4 oz. 17 dwts. 7 grs.

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|---|---|---|---|---|---|
| Mr. Oakley, | 12 Gooseberries | No 1, | wt. 4 oz. | 10 d. | 5 gr. |
| " Aymar, | " | 2 | 4 | 8 | 0 |
| " Wilson, | " | 3 | 3 | 17 | 21 |
| Dr. Harriot, | " | 4 | 3 | 14 | 21 |
| Mr. Cooper, | " | 5 | 3 | 13 | 8 |

Mr. Prince, presendte a most splendid collection of flowers and some fine fruit, all labelled according to his catalogue; among them were 100 varieties of Carnations, consisting of Flakes, Bizarre, Crimson, and Picotees, pronounced by the committee to be No. 1. More than 100 kinds of other rare and beautiful flowers were presented by Mr. P. Of the Fruit, by the same gentleman, the following sorts Ribes oxycanthoides, (hawthorn leaved currant), late Remington Cherry, (fruit still green), Transparent Guigne do., Plumstone Morello do., Knivet,s new Pine Strawberry. White Brentford Raspberry, Nottingham Medlar, Amygdalus mana.

*July*, 14.—Mr. Warner, presented 15 superior apricots, six of which weighed 13 oz. and measured each 6 inches.

Mr. Probyn, 12 Gooseberries, weighing 3 oz. 19 dwt. 15 gr.

Mr. Smith, white salad beets from Mr. Whetmore, superintendant of the Hospital.

Mr. Still Antwerp Raspberries, and 3 sorts of Carnations.

Mr. Wilson, 2 seedling Heaths in flower.

Mr. Bridgeman, very fine English broad Windsor Beans.

Mr. W. Phelan, 4 early York Cabbages, weighing 13 lb. 1 oz., and 4 sorts of Carnations.

Mr. Neal, 8 kinds of handsome flowers.

Mr. Oakley, 4 do.

Mr. Parmentier, a Tulip tree with full leaves, purple European Beech, long thorny honey Locust, leaves of the silk worm Mulberry, real Chinese ditto, a male Weeping Willow (the female alone known in this country, and also in Europe until very lately), Black currant, with variegated leaves, Hop tree, the seeds of which are a good substitute for hops in beer, and about 30 other kinds of foreign shrubs and trees. The following cherries by the same gentleman, cerise d'Austrion, Cerise du nord, Griotter d'Allemange, Cerise de Metz.

Mr. Prince about fifty specimens of plants and flowers, among which were Astrapea Wallichi, (one of most magnificent plants in nature), Talinum teretifolium (native), Zephyranthes carinata from Mexico, Double Dahlia coleur de giroflee (very superb), Clematis flammula (the most fragrant of the whole family), Purple flowering Allium, Aralia from Texas, Chili Potatoe (the original of the cultivated species), Splendid Parasitic Plant from Carracas, Sweet Japan Hoveni,and Evergreen Oak from the mountains of Mexico.

*July, 21st.*—Mr. Prince presented Nicotiana suaveolens, Rosa microphilla, large double flowering, Fuchsia virgata, Monarda mollis, Spiræa tomentosa, and a most splendid bouquet of flowers, more than 100 species.

Mr. G. Van Schaick, of Lansingburgh, Eggplants one weighing 2 lb 1 oz.,

Mr G. Still, do. 1 lb 11 oz. one do. 1 lb. 10 1-2oz. one do. 1 lb. 11 oz., and 12 Tomatoes (superfine) quite ripe, and a plant of the same containing upwards of 100 on half the stem; also New Zealand Spinage.

Mr. Cooper 25 Cling-stone apricots and a branch.

Mr. Oakley, ripe freestone, muirpark, and harvest Apples.

Mr. Parmentier, Siltene viridiflora, catchfly, cassia Maryland., or Maryland senna, Phlox pyrimidalis, Ononis fructicosa, shrubby restharrow, 6 varieties of sweet scented Peas, viz: pure white, stripped and spotted blue and brown, painted Lady, carmin and larking, blue and dark red, dark violet and brown, and also two specimens of the fruit of the Plumcherry.

*July*, 28.—Mr. Neal presented specimens of Phlox paniculata, var., double and single Dahlias, Delphinum grandiflorum, perennial sun-flower, double lychins, and some beautiful Honeysuckles and Geraniums.

Mr. W. Phelan some beautiful double Poppies and Myrtles. Also Nerium splendens, white Oleander, Volkameria Japonica, Gardenia radicans.

Mr Coady, some fine ripe Lima Beans and Egg plants, weighing 1 lb. 1 1 oz. and 1 lb. 10 1-2 oz.

Mr. Parmentier, an assortment of flowering specimens. Among them the Rudbeckia purpurea, Serratula prœalta, Senecio elegans, Seedlings of the Quatre saisons Rose, and 14 different varieties of Hollyhocks.

Mr. Floy, some exceedingly rare and elegant Flowers, such as; Arum esculentum, or eatable Arum, Colocasia, Egyptian Arum, Agapanthus umbellatus, blue African lily, Eucomis punctata, Magnolia obovata, 2nd time of flowering, Lonicera Fraseri, yellow honeysuckle, Vitex incisa China cut-leaved chaste tree, Lupinus mutabilis, a new lupin, very sweet, Petunia nyctaginiflora, double white tea Rose, raised by the proprietor, very sweet, Mimulus moschatus or musk plant, do. rivularis, Hypericum monogynum, Pasminum gracile, do. glaucum, do. adoratissimum, Lonicera japonica, Nerium splendens, Bantania comarum, Pelargonium crispum, do. lancidamum Daphne guidum, Plumbago capensis, Fuchsia cocinea, ditto tenella, Champney's cluster Rose, double rose and white Althea, Royal Stubbard, a fine English Apple.

Remarks.—The exhibitions for this month have embraced many rare, beautiful, and useful plants. The splendid flowers and fine fruits, with which the Society's tables have been richly decorated, afford a gratifying proof of the increasing attention paid to horticulture, and of the skill and public spirit of the contributors.

As the object of the society is to encourage the general cultivation of plants calculated to beautify our country, and increase its resources, and as the exhibitions are so numerous, that a detailed account can not be published, we would suggest to the exhibitors, to interline the list of the articles they present, with brief descriptions of the qualities and habits of plants that are deserving of particular notice. For instance, they could say of a plant, it was very fine for tarts, used in medicine, makes excellent soup, one of the best for cider, easily preserved, not affected by the frosts of our climate, recently introduced into this country, grows on a dry light soil, remarkably beautiful, or the most splendid of its genus. Remarks similar to these, would render the publication of the proceedings of the committee, more interesting, and increase the usefulness of the society.

## NEW YORK, JULY, 31. 1829.

*Parmentier's Garden in Holland.*—During a Horticultural journey, made in 1829, to Holland, by A. Poiteau, principal editor of the "Good Gardener", for 1829, he thus expressed himself in relation to the establishment of the Chevalier Parmentier, burgomaster of the city of Enghein.

"The amateur has but two gardens to see in the small city of Enghein, that of M. Parmentier and of the Duke of Arenburgh. For a long time M. Parmentier has justly enjoyed in Europe the reputation of a practical botanist. His collection of plants is the greatest and richest on the continent. The personal merit and learning of the proprietor, and the dignity with which he is clothed as Burgomaster, give a lustre to his establishment, and become the confidence of those who make use of his plants. Never have I seen so many of the vegetable tribes of all regions of the world collected at one point; and never have I met with so many, which to me were unknown. The sales of Mr. Parmentier must be immense to dispose of so many plants. The following are among those which were striking, and which I had never seen:—the Magnolia odoratissima, a tree of midling size, which, when at the height of four or five feet, has large white flowers with a very agreeable odour; the Gloxinia scuti, Azalea Indica Lutea, and a great number of Orchis unknown at Paris."

M. Parmentier has also a vast nursery, where he cultivates ornamental plants and fruit trees. He has not long since obtained a very beautiful hard cherry, which he calls Bigarreau Napoleon, and a pear, which he has named the Fortunate. The last is large, the flesh melting like butter and delicate. This pear can be preserved until July. It is according to M. Parmentier, a most precious fruit, for its dissolvent

mellow flesh, snd for its being easily preserved for a long time."

The Chevallier Parmentier is the eldest brother of Mr. Andrew Parmentier proprietor of the Horticultural Botanical Garden at Broklyn, who thus has facilities for the introduction of choice fruits from Holland.

*Frost Conductor.*—In one of the columns of the A. Far., a writer asserts the efficacy of a "Frost conductor." I send you a few pages of a work lately published, in a note of which the writer controverts the position.

"It has been recorded that apricots have been preserved by the Frost Conductor, which consists of a rope of straw wound round the tree, while the lower end is immersed in a tub filled with water. The name of this apparatus, however, shows that the inventor could not have understood the reason of its effects; because straw is a very imperfect conductor of heat; and frost being only the result of its absence could not be conducted. The straw, by winding round the tree only a few times in its descent, must confine the natural warmth in a very slight degree; and, therefore, to the exhalations alone ought we to ascribe all the benefit produced by this contrivance. Indeed without such appendage, tubs of water are found to soften the air of cellars in winter, and to prevent the more tender vegetables form freezing."

[We consider the straw serviceable. The capillary attraction existing in the mass, and in the bores of each straw, will carry up and keep the water suspended, and thus benefit the higher branches.]

*Editor N. Y. Farmer.*

*The Young Gardener's Assistant.*—In the notice of this work in the Farmer, page 117, is the following sentence, "In hoeing early lettuce the second time, radishes are sowed between the rows, and as space is left by pulling up alternate heads of lettuce, cabbage plants are set out." The author's practice is better exemplified in the following extract. "Hoe them (the lettuce) the first week in april—previous to hoeing the second time draw a drill between each row of plants, and plant beet or carrot seed: this may be covered up in hoeing the lettuce and by time the plants are up strong, the lettuce will be fit to cut."

*Uniformity in the names of Fruits.*—At a meeting of the Mas. Hor. Society, June 20, J. Lowell, G. Perkins, and S. Downer, were chosen a committee to facilitate an interchange of fruits the ensuing autumn, with the Philadelphia, New-York, and Albany Hor. Societies, and others, for the purpose of establishing their synonymes. There is no greater obstacle to the cultivation of fruits, than the great confusion in their names that now prevail. It is no uncommon occurrence for a person in ordering trees from different nurseries, either in Europe or the U. States, to find, after waiting for his trees to come into bearing, that he has the same fruit under three or four different names, or to receive some kind of which he already has a sufficient number. The different Hor. Societies in Flanders, London, and Paris, are attempting to remedy this evil, and have already accomplished much, although their facilities for the interchange of fruits are not so great as are those possessed in the United States.

Specimens of fruit can be sent to the Society's Hall, No. 52 North Market Street, care of J, B. Russel.—*N. E. Farmer.*

*To cure Hams as practised in Virginia.*—Take six pounds of fine salt, three pounds of brown sugar, or three pints of molasses, and one pound of salt petre powdered; mix all these together; to serve for 20 hours; rub each ham well all over with this mixture, and pack them down in a cask or tub, and let them so remain for five or six days; then turn them. and sprinkle some salt slightly over them, and so let them remain five or six days longer, then add brine or pickle strong enough to bear an egg, and let them remain covered with it for a month, when they will be fit to smoke.

Hams cured after this manner will be sweet and good for any length of time.

*To Pickle Meat.*—Six pounds of salt, one pound of sugar, and four ounces of salt petre, boiled with four gallons of water, skimmed and allowed to cool, forms a very strong pickle, and which will preserve meat immersed in it. To effect this, either a heavy board or a flat stone must be laid upon the meat. The same pickle may be used repeatedly, provided it be boiled occasionally with an addition of the salts. The albumen which would cause the pickle to spoil, is coagulated and rises in the form of scum, which must be carefully removed.

*Method of preservnig Eggs.*—Eggs keep very well when you can exclude the air from them; which is best done by placing a grate in any running water, and putting eggs as the hens lay them, on the upper side of the grate, and there let them lie, covered with water, till you are going to use them; when you will find them as good as if they had been laid that day. In places where people are afraid their eggs will be stolen, they should make a chest with a number of holes in it, that the water may get in it, the top of which being above the water, may be locked down. Mill dams are the most proper for these chests or grates. The water must continually cover the eggs, or they will spoil.

*To Pickle Onions.*—Put a sufficient quantity of small round onions into salt and water for nine days, observing to change the water every day; next put

them into jars and pour fresh boiling salt and water over them, cover them up close till they are cold, then make a second decoction of salt and water, and pour it on them boiling hot. When it is cold, drain the onions on a hair sieve, and put them into wide mouthed bottles fill them up with the best vinegar, or(distilled vinegar,) put into every bottle a slice or two of ginger, a blade of mace, and a tea spoonful of sweet oil; which will keep the onions white. Cork them well up and set them in a dry place.

*Hemp.*—About 1000 bushels of hemp seed have been sown this season on 400 acres of land in Northampton, Hadley, Hatfield, Sunderland, Deerfield, and Westfield. The number of acres of hemp in Northampton is about 200, of which 175 were sown by one company. Some seed was sown as late as July 11th. The growing hemp generally looks well —some of it is just out of the ground, and some two or three feet high. A building is now erecting in this place (Noethampton) for the hemp machine.

Some of the farmers in West Springfield and Long Meadow have cultivated hemp for some years past, and the number of hemp growers in those towns, it is believed, has not diminished the present season.

*Grain.*—Three or four boat loads of grain have been grought to this place from Vermont. The rye was sold at 83 cents, corn 67 cents, and oats 38 cents. These were the wholesale prices. the retail price for rye is about 92 cents, and of corn about 75 or 80 cents. A boat load of Maryland corn has been brought up the river, and sold here for horse feed at 67 cents.

The crops of grain are said to be promising in all parts of the country, and the price must be low after harvest.—*Hampshire Gazette.*

*Wool.*—Large quantities of grade and full blood Wool from this county, Berkshire &c. have been sold to the manufacturers within a few weeks; but we have not been able to obtain so accurate information respecting prices as we could wish. Some has been sold as low as 25 cents, and we heard of one ot which brought 43 cents. We believe that the greater part has been sold from 30 to 35 cents; the average does not exceed 32 or 33 cents. The fleeces may have averaged between 90 or 100 cents.—*Ib.*

*Query.* Mr. Editor,—Will you or some of your correspondents, through the medium of your valuable publication inform me, to what extent (if any) the Palma Christi, or Castor oil Bean is cultivated in the State of New York, and the most approved mode of raising it, and of extracting its useful oil?

Domestic Manufacturer.

*Culture of Silk.*—The directors of the house of Industry and Reformation, at South Boston, with an enlightened policy have determined to introduce the cultivation of silk, for the purpose of affording employment to the inmates of those establishments.—They have had a large number of White Mulberry trees planted, as a preliminary step in the business. It is an excellent plan, and in a few years their example will probably be followed by many.—*N. E Far.*

*Potash from Buckwheat Straw.*—As the season for sowing buckwheat is approaohtng, I beg leave to give some information not generally known, that probably will encourage farmers to pay more attention to the cultivation of that article. The grain itself and the manner of raising it is so well known, that any observations upon that subject would be superfluous. I wish to call their attention to the manner of turning the straw to account. That article is generally altogether destroyed by fire, and wasted, although it contains a greater quantity of *potash* than any vegetable that has come under my notice and is easily obtained.

My method is, as soon as the grain is threshed, to scrape away a smooth spot on level hard ground, on which burn the straw by small quantities at a time, continuing to throw it on the fire as fast as it will consume, the ashes must be left on the ground to cool, and afterwards taken up in barrels and put away for leisure time. The ashes can be leached in the usual way for soap makers, and the ley should be kept clear and free from sediment: it must be then boiled until it becomes a solid cake and perfectly dry, when it will be very hard and stick to the sides and bottom of the vessel in which it is boiled, but by suffering it to stand for a few days to attract the moisture it can be easily broken up and taken out. It must now be placed in a furnace and exposed to a red heat for a few hours, when it will be as white and as pure as any potash brought hither for sale.

Two acres of buckwheat straw when burned, produced me a barrel of ashes, from which I procured thirty pounds of pure potash.

The sale of the potash will fully pay the expense of cutting, threshing, and cleaning up the grain, as also the trouble of leaching boiling and baking the salts, which can be done at leisure, as the ashes if kept dry, may be preserved a long lime. A small furnace that can be built by any ingenious farmer, will answer the purpose of baking the salts. It cannot be injured by any heat we can give it, but if exposed to the atmosphere it will soon dissolve and waste away.

A Farmer.

*Western Register.*

*Query.* Mr, Editor,—I would be glad if you or any af your readers, could inform me, through the medium of your publication, if the manufacture of *Kelp* has ever been attempted in the United States? And if so, what was the cause of its being abandoned? There appears no want of abundance of the

proper kind of Sea-Weed all around the sea shores, particularly of the northern states. It would, no doubt be a profitable production, being always in demand by the glass and soap manufacturers, by whom it is considered, in some instances, equal, if not superior, to the Barilla, which is so largly inported. The manufacturing of Kelp is quite a simple process, and I am of opinion, persons could be found in the City perfectly well acquainted with the process as at present practised on the northern coasts and Islands of Scotland, where, it has generally been admitted, the manufacture of Kelp has been brought to the highest state of perfection. T. D.

*The Harvest.*—From almost every section of the country, the crops of grain and hay are represented as having been good and abundant, and generally secured in fine order. Apples are plentiful in several of the states, paricularly in Pennsylvania, in the northern part of the New England States there is a scarcity. The Sugar crop, which is becoming an object of much importance in the southern states, is materially injured by excessive rains.

*Salt preventive of Weevils in Wheat.*—Travelling through Wood county, Va. last Nov. I was informed that a farmer on the Ohio had found entire protection against the ravages of weevils, by sprinkling his wheat with salt, using about the same quantity as with his hay. Let me suggest to you the propriety of recommending to your eastern friends the repetition of the ezperiment; the straw will be much improved as a winter fodder, and the grain in no wise impaired, if designed for flour; what effect the salt may have on the vegetative property of the wheat, will be best decided by the test of experience. A Farmer. —*A. Farmer.*

THE FARMER'S LIFE.

How blest the farmer's envied life,
His active days and tranquil nights,
Far from the city's noise and strife,
On him the curse but feebly lights.
When from the soft and pleasant south
The balmy musk wind sweetly steals,
And spring comes forth with rosy mouth
To breath fresh greenness o'er the fields,
With what a cheerful face he wends,
With sparkling eye and cloudless brow;
With what a manly grace he bends
His sturdy figure o'er the plow.
Then beside the furrowed heaps,
The rich and liberal seed is sown,
While in his breast the glad heart leaps
To think the soil—the soil's his own.
What pleasures must his bosom fill,
When 'neath the summer's ray he stands,
Turning his eye o'er vale and hill,
O,er all his richly cultured lands,
He sees the harvest ripening fast,
And knows his strength hath made it rise;
And he shall taste its fruit at last,
Beneath his own dear native skies.
And when the merry autumn's fled,
And the large barns are amply stored,
How many a gay and joyous head
Is gathered round his plenteous board?
And then when winter's rainy clouds,
Rise in cold grandeur o'er the sky—
When from the east in dusky crowds
They almost chill the heart and eye—
He safely sits beside his hearth,
That many a frolic child makes gay,
And to the thrilling sounds of mirth,
He wiles the stormy hours away.
*New-York*, 1829. U.

*Avearge price of Vegetables sold in Washington Market for July*, 1829, [Corrected by WILLIAM CURR, Gardener, for the New-York Farmer.]

*Cauliflower*, from 8 to 18 cents per head.—*Brocoli*, 6 to 12 1-2 per head.—*Green peas*, from 25 to 50 cents per bushel.—*New potatoes*, from $1 50 to 31 1-4 cents per bushel.—*Cabbage*, from 18 to 75 cents per dozen heads.—*Lettuce*, 9 to 18 cents per dozen.—*Radishes*, from 9 to 14 bunches for 12 1-2 cents.—*Carrots*, 2 to 4 cents per bunch.—*Beets*, 3 to 6 cts. per bunch of 5.—*Onions* from 14 to 18 bunches for 12 1-2 cents.—do. in string from 3 to 5 cents per string of 2 to 3 lb. wt, each.—*Watercress*, 6 to 18 cts. per 1-2 peck.—*String-beans*, 12 1-2 to 50 cents per bushel.—*Windsor* or *Broad-bean*, 75 to $1 per bush.—*Turnips*, 2 to 6 cents per bunch of 6 to 12.—*Salsify*, 4 to 6 cents per bunch.—*Parsley*, 3 cts. per bun.—*Spinach*, 25 to 32 cents per bushel.—*Cucumbers*, from 12 1-2 to $1 per 100.—*Squashes*, 25 to 50 cts. per doz.—*Endive*, 12 1-2 to 18 cts. per doz.—*Chives*, 8 to 10 cts. per doz. bunches.—*Parsnips*, 8 to 10 cts. per bunch.—*Green-Corn*, 6 to 16 ears for 12 1-2 cts.—*Musk Melons*, 8 to 18 cts. each.—*Water do.* 12 to 55 cts. each.—*Native Grapes*, 4 to 12 1-2 cents per half peck.—*Plums*, 12 1-2 to 18 cts per quart.—*Apples*; 12 1-2 to 37 1-2 cents per bush.—*Pears*, 25 to 50 cts. per bush.—*Gooseberries*, 4 to 8 cents per quart.—*Raspberries*, 3 to 5 cts. per basket.—*Whortle berries*. 6 to 9 cts. per quart.—*Blackberries*, 4 to 8 cts. per quart.—*Peppeos*, 50 to 75 cents per 100.—*Tomatoes*, 25 to 75 cents per half peck.—*Eggplant Fruit* 9 to 2 lbs., 6 to 10 cents each.—*Sage*, *Thyme*, *Hyssop*, *Sweetmarjorum*, *Sweet basil*, *Balm*, *Tansey*, *Horehound*, and a great variety of other herbs, in great abundance from 10 to 14 bunches for 12 1-2cts.

The supply of vegetables this month has been very abundant and the quality excellent.